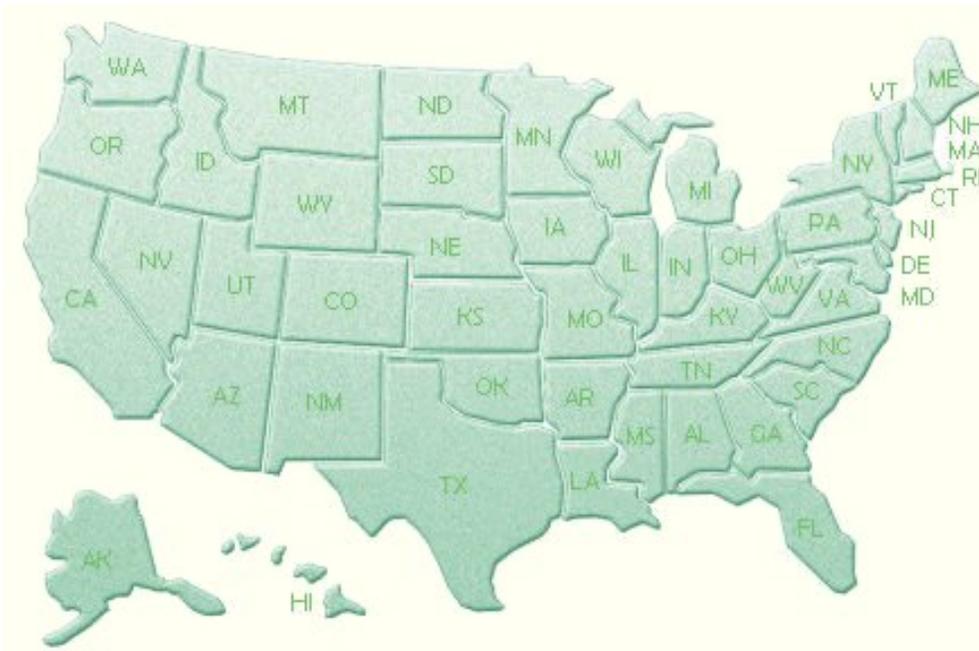


# Lessons Learned

## A National Report



**32,000,000 children: victims of a public health crisis**

## **LESSONS LEARNED**

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### ***Preface***

**Lessons Learned** is a collaboratively prepared national report revealing the widespread human health, family, and community impacts of school facilities that are poorly designed, constructed, operated, or maintained. Coordinated by Healthy Schools Network, Inc., the report represents the cumulative work of extraordinarily persistent and talented individuals and energetic organizations dedicated to ensuring that all children and personnel have environmentally healthy schools, and if not, then access to preventive public health services.

**Lessons Learned** is designed to be read with **WHO'S IN CHARGE**, a new research report from Healthy Schools Network, Inc. documenting the surprising lack of public health agency oversight, interventions, and research to prevent harm to children who are at risk due to environmental hazards common to schools-- such as chemical spills, unchecked renovations, pesticide misapplications, leaded drinking water, and indoor air pollutants such as mold infestations. Readers will note that in some states, health departments are increasingly involved.

Healthy Schools Network, Inc. is a national 501c3 not for profit environmental health organization dedicated to ensuring every child and school employee an environmentally safe and healthy school. With its founding a decade ago, it put a top priority on preventing harm to children with policies, legislation, and funds to address facility problems. It has also assisted countless other not for profits, as well as fielding daily requests from parents, personnel, schools, and agencies on school environments.

**Readers seeking assistance:** for help with a school issue, or to get involved in your area, call or visit the websites of the Contributors, or see additional information in the Appendix to this report.

***Disclaimer:*** *Individual, local, and state Contributors are responsible for the accuracy of their individual "voices" or first-hand reports and have reviewed the text in advance of publication. The state data tables were developed from national sources and may not be the most current data available within each state.*

**April 2006**

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*Healthy Schools Network, Inc. also thanks SUNY Albany (NY) School of Public Health MPH Graduate Student Intern Zoe' B. Gibson for her diligence and hard work to assemble this report. The report's development was coordinated by Claire L. Barnett, Executive Director.*

## **LESSONS LEARNED**

**32,000,000 American children at high risk of health and learning impairments.**

There is simply no public health system in place to prevent harm to children from the very same exposures that many adult employees of schools have some protection from. Yet, this report is not a call for a 'kid-sized OSHA' or a demand to fix schools. It is a strong reminder that our children are without any system of preventive environmental public health services that address children's specific situations and vulnerabilities.

**Lessons Learned** shows the impact. 32,000,000 children at high risk every day just by attending schools that have self-reported facility environmental problems that can affect health and learning. Hazards common to schools include indoor air pollution including mold infestations, airborne fiberglass particles, lead and copper contaminated drinking water, pesticided playgrounds and classrooms, unchecked furnaces and buses leaking carbon monoxide, chemical spills, uncontrolled renovations filling occupied buildings with fumes, demolition dust, and exhaust from gasoline-powered equipment, or emissions from hazardous facilities next door. As a nation, we must ask why are our prisons in better shape than our schools (American Society of Civil Engineers).

This report reveals the heartbreaking personal impacts and the pernicious effects of having no agency in charge of preventing harm to children. Story after story shows that no matter where you live, public health agencies-- and more importantly we as parents, grandparents, aunts and uncles, and all who care about children-- have long ignored our collective obligation to protect those who cannot protect themselves.

As the accompanying **WHO'S IN CHARGE** research report reveals, federal and state public health agencies understand that children are more vulnerable to environmental hazards than adults—for example, children breathe more air per pound of body weight. It also shows that the education and environment agencies are aware of compelling evidence that environmental conditions of schools influence test scores, attendance and possibly even suspension rates.

Thus the lack of any system to respond to children's environmental health needs and the lack of focused interagency strategies harm children, overwhelm parents, teachers, school administrators, and board members, and disadvantages both public and private educational systems. All are without the benefits of consistent expertise, independent oversight, and interventions. No one is accountable for schools as children's 'worksites'. As a result, children are the victims.

“Each day over 53 million school children and 6 million adults - 20 % of the entire U.S. population - enter our nation's 120,000 school buildings to teach and learn. Unfortunately, in too many cases, they enter "unhealthy" school buildings," that undermine learning and health. Many school facilities have been poorly maintained and thousands of our nation's schools remain severely overcrowded, even schools piloting “small school” policy initiatives. Schools are often sited next to industrial plants or on abandoned landfills; new schools are

built beyond safe walking or biking distance for students. In a recent five-state survey, more than 1,100 public schools were built within a half-mile of a toxic waste site. Polluted indoor air, toxic chemical and pesticide use, growing molds, airborne fiber glass, lead in paint and drinking water, and asbestos are also factors that impact the health of our nation's students and school staff. These problems contribute to absenteeism, student medication use, learning difficulties, sick building syndrome, staff turnover, and greater liability for school districts.

.... Clear and convincing research shows that simple steps to improve school indoor environmental quality, siting, and design, to use non-toxic products for cleaning, maintenance and instruction, to provide more natural daylight, and to create energy efficient, neighborhood schools with adequate, safe space for outdoor activities, will all contribute to promoting the health and learning of our children, to improving public education, and to creating healthier communities....” (*Coalition for Healthier Schools Position Statement, supported by over 380 individuals and organizations nationwide.*)

Children’s disorders associated with environmental risks appear to be increasing yearly. Autism is one such condition: current estimates are that one child out of 166 in the US is autistic. In 2005 there were 166,302 students in the US diagnosed with autism, an increase of 25,382 from the previous year. This is significant because it has tremendous implications for susceptibility to environmental stressors. Asthma is another condition that is plaguing children. Indoor air problems in schools could be a major contributor to the peak in asthma hospitalizations at the start of the school year, as well as exacerbating existing cases.

In December 2004 the *Journal of School Health* published “Science Based Recommendations to Prevent or Reduce Exposures...in Schools” that summarized a decade of peer-reviewed literature of how school environments impact children. In the same year, the US Department of Education published its National Priority Study pursuant to No Child Left Behind law (*Section 5414*) that reviewed a similar set of scientific findings. It found strong evidence that school environments adversely impact children.

**Congress has yet to call for the Education Department’s study** or to ask what the department or any other federal agency recommends as next steps. While federal and state interagency coordinating bodies are needed to ensure effective policies and actions, the ability to truly address children’s will require new health actions and executive, legislative, and judicial leadership.

**Children at High Risk for Health and Learning Impacts.** State data tables in this report showing the estimated numbers of children at high risk should be carefully considered. The federal Department of Education collects information from the states on the number of school facilities, students, students in special education, and personnel. The percents of school facilities that are inadequate and that have deficient environmental factors are taken from American Society of Civil Engineer’s *Infrastructure Report Card 2005*, in turn taken from 1996 and 1999 self-reported information from schools-- remarkably, the only such data available.

Using this data and the experiences of its regional staff, the US Environmental Protection Agency currently estimates that about half of all schools have indoor air

pollution, a top human health hazard. Indoor air can be five to 100 times more polluted than outdoor air. To estimate a number of children at high risk of health and learning impairments, Healthy Schools Network (HSN) took the average of 1) the percent of schools reporting at least one unsatisfactory environmental condition in each state and 2) the percent of schools reporting at least one inadequate building feature in each state, then multiplied the average percent by the state's total enrollment. HSN did not do additional calculations for children with existing impairments, such as asthma or developmental disabilities, who may at even higher risk. Facility factors such as poor indoor air, inadequate heat, light, plumbing, and ventilation, and poor acoustical controls can impact health and learning.

Since the facility detail was self-reported by schools, it is important for readers to understand that in states that provide state financing or have bond acts pending, it is in the interest of districts to show need. It may not be in the interest of districts to report problems absent a source of capital funds. Meanwhile, the studies of America's school facilities have not considered mold or pest infestations, lead in drinking water at the tap, nearby hazardous facilities, failed kitchen inspections, pesticide use, the presence of an indoor shooting ranges, or if the schools had a chemical management plan. US EPA pilot studies in Maine and Minnesota showed that school buildings contained an average of four to seven pounds of elemental mercury. CDC found elevated blood lead levels in teenagers on school rifle teams.

### **LESSONS LEARNED**

Schools should be designed, built, operated and maintained to be healthy facilities, inside and out. Federal and state programs in each of these areas are expanding and-- given the vulnerabilities of children and the national desire to improve school achievement-- should be implemented even faster. In the absence of appropriate local actions, children need local advocates and need preventive public health programs.

In 1996, the US GAO estimated that over 13 million children were in schools that daily eroded their health. Today, we put the number at 32,000,000 at risk of health and learning impairments.

- Federal and state executive leadership is urgently needed to coordinate, build, and define an effective and efficient array of federal and state agency efforts to address children's environmental health and to speed up the improvement of school environments.
- Federal and state initiatives should pilot environmental public health clinical and support services that are empowered to intervene to prevent harm to children and provide support services for parents.
- Federal agencies should develop a research agenda on environmental health at school and on school indoor environmental quality.

# Alabama



# The voice

## Lessons learned

- Be aware of your child’s school environment
- Be relentless
- Remember that change takes time-anything that is worth changing, is worth waiting for

**“When do we actually take the time to look around and see what they live in for seven hours a day?”**

I became involved with the school environmental issues last year when my oldest child entered fourth grade. My straight A student started failing. She struggled with ear infections, headaches and sinus infections. I took a long look around her classroom and was horrified. There was mold growing everywhere, dirt covering the vents, and sewer gas coming from the bathroom- enough to make anyone sick. We drop our kids off and pick them up at the front door; when do we actually take the time to look around and see what they have to live in for seven hours a day?

I have preached from my soapbox to anyone that would listen. I’ve been laughed at, dismissed and told that cleaning dust off the ceiling pipes “looks like a job for the PTO moms”, but I eventually got through to the right person. After a year and a half, I’m finally seeing something happen. The pipes and vents are being cleaned and an inspection has been scheduled. Regarding any effort to remove the carpet-I won’t hold my breath, however, I would recommend that approach for anyone entering the restroom.

Alabama PTO Parent

No. School Buildings	1,526
No. Students	731,220
No. Minority Students	293,015
No. Students in Special Education Program	122,698
No. Employees in School System	90,098
% Children with asthma (under 18)	9.6%
%Schools with at least one inadequate building feature	59%
%Schools with at least one unsatisfactory building condition	63%
No. Students At High Risk Daily*	446,044
State Education School Facilities Office	Y
State OSHA Plan	N/A
State Grants for Construction	Y

See Appendix for sources of data in state by state tables.

# Alaska



## Lessons learned

- Physicians should always consider school environmental exposures, and prompt parents to find out more.
- Federal health data show school rifle team members can have elevated blood lead levels. Ask if your school has or used to have a shooting range. Get the dust tested and cleaned up.

# The voice

**"When the schools are good, they are very, very good, and when they are bad they are horrid."**

In 2002 at least 148 Alaska schools were identified as needing major repairs. Over 40 schools in Alaska have contamination on school grounds that is significant enough to limit school activities.

In 2001, over 81 Alaska schools, out of 131 that have their own drinking water systems, violated state drinking water requirements. The 81 schools received a total of 896 violations of which 74 were health based, meaning either bacteria or a contaminant was found in the water at unsafe levels. The remaining 822 violations were due to lack of monitoring, meaning the schools did not have their water tested as frequently as needed to determine its safety.

While there is very little information about indoor air quality in Alaska's schools, it is important to pay attention because of the large amount of time spent indoors, overcrowding, the airtight construction common in cold climates, and deferred maintenance.

Concerned Pediatrician

No. School Buildings	521
No. Students	133,933
No. Minority Students	55,052
No. Students in Special Education Program	17,851
No. Employees in School System	16,388
%Children with asthma (under 18)	8.3%
% Schools with at least one inadequate building feature	69%
% Schools with at least one unsatisfactory environmental factor	80%
No. Students At High Risk Daily*	99,780
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Arizona



# The voice

## Mold Attacks!

He may have been the healthiest health nut in Gilbert. The former collegiate runner coached Gilbert's junior high and high school cross-country teams by running out ahead of his athletes, playing rabbit to make his greyhounds stronger. In 1987, a new Gilbert High School was built. That year, Corn and the other junior-high teachers moved into the old high school, a collection of 24-year-old buildings just south of Gilbert's downtown. And all of a sudden, the 40-year-old superhuman needed a doctor.

He began having sinus infections and high blood pressure. He began getting fungus growths on his body. Through the 1990s, he was visiting the doctor almost monthly -- sinus infection, fungal growth, fatigue, pneumonia, eye ulcers, cysts. In 2000, he was diagnosed with testicular cancer, and 13 lymph nodes were removed. Several months later, new cancer was found, which led to more chemotherapy. Again, he beat the cancer. Corn kept returning to work, kept coaching. But by 2003, he was barely making it through the school day. When he wasn't at school, he was usually asleep. In August 2003, Corn returned to school after the summer break. What he found in his office, he says, explained everything: **It was the building that was killing him.** When he arrived, men in hazard suits were tearing out parts of the gymnasium's ceilings and walls. Most of the gym was cordoned off and locked up, but teachers and students could still walk through the girls' and boys' locker rooms. The gym was full of mold and asbestos. It had been that way for years and the wall against which Corn's desk sat for 17 years was one of the worst spots. What Corn discovered from speaking with other employees, and a *New Times* investigation seems to confirm, is that Mesquite Junior High had been a breeding ground for black mold since at least the early 1990s. For years, though, school officials essentially told maintenance crews to just paint over the problem, not fix it. And school officials spent that time ignoring staff concerns that the buildings might be toxic.

The health effects of their actions on students and teachers can never be fully known. Corn now has no medical insurance and no job. He recently sold his home to free up money for living and medical costs.

From: Phoenix News Times, by Robert Nelson, Oct 13, 2005

## Lesson Learned

- Prevention First
- Solve problems before they overwhelm occupants

No. School Buildings	2,031
No. Students	1,012,068
No. Minority Students	492,106
No. Students in Special Education Program	109,477
No. Employees in School System	95,885
%Children with asthma (under 18)	8.6%
% Schools with at least one inadequate building feature	64%
% Schools with at least one unsatisfactory environmental factor	69%
No. Students At High Risk Daily*	673,025
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Arkansas



## Lessons learned

-Those wishing to have the wonderful benefits of a new school must insist on getting them.

- Bait and Switch is a commonly used tactic, and many are not afraid to use it if they think the customer can be duped.

- In selecting a school architect or builder, check references.

# The Event

## Bait and Switch-What Happened at Hector

The two new, concrete school buildings at Hector, Arkansas are concrete domes built on top of concrete walls. They are **not** Monolithic™ Domes. Consequently, they will not have the energy efficiency of Monolithic Domes, which is what the Hector School District thought they bought. Monolithic is a trademark for a specific, concrete/urethane composite shell with energy efficiencies that are far greater than what Hector purchased.

Bait and Switch is a tactic where you offer to sell an excellent product at a very good price. But then when the customer agrees to buy it, you say, "Oh, we are out of that," or "It was on sale for only one day," or "ta-da ta-da ta-da. But, do have this; it's just as good or better, etc." This can be done with schools as well as pots and pans. What bothers me the most about the Hector situation is that the chosen architect never allowed us to help him. He either did not believe what we did tell him or he chose to ignore it. The dome they have under construction is to be coated with a ceramic coating. It is good stuff for reflecting sunshine, but none of the manufacturers I have dealt with consider it a total replacement for thermal insulation. And if Hector insulates above the classrooms and below the domes, that will be like attic insulation in a conventional home. Done this way, the "thermal battery" effect of the dome is totally ignored and its benefit is lost.

From: Dome News, by David South, July 20, 2001

No. School Buildings	1,150
No. Students	454,523
No. Minority Students	136,647
No. Students in Special Education Program	57,793
No. Employees in School System	62,465
%Children with asthma (under 18)	8.2%
% Schools with at least one inadequate building feature	42%
% Schools with at least one unsatisfactory environmental factor	62%
No. Students At High Risk Daily*	236,352
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y

# California



## Lessons learned

-There are no laws to protect children

-Keep decision makers informed of possible health hazards

-Schools are required by federal law to provide a free appropriate education to all students, especially those who are health-impaired

-**Los Angeles'** children will benefit from the new green schools currently being built by LAUSD. These schools have superior acoustics, good ventilation, daylight, and use low-emitting materials.

-**California, the creator of CHPS**, is on the cutting edge for green school programs nationally with dozens of districts involved.

# The voices

**“There are no laws to protect children from bad decisions made by local administrators”**

A California lawyer and a parent of a new kindergartener was stunned to find her district superintendent had decided to move the diesel bus parking lot to within six feet of her child’s portable classroom-this is at the district’s “choice” school.

When her urgent and finally public appeals went unheeded, she went online with her fellow law school graduates only to learn that there are no laws to protect children from bad decisions made by local administrators.

California Parent & Lawyer

**“He has been diagnosed with Sick Building Syndrome”**

My son was in a classroom where he had three back to back episodes of strep, chronic fatigue, daily migraines and bloody noses, itchy skin, and red eyes. I kept him home schooled until I could figure out an appropriate accommodation with a doctor's note stating his reactions. The school counted him as unexcused and said they didn't know why I was keeping him home. The teacher would not give him any work from his class to work on. The counselor said it wasn't the teacher's responsibility to give him any work. He has been diagnosed with Sick Building Syndrome and has serious health compromises. His chemical intolerance keeps him isolated at home most of the time. I am afraid his future has been sabotaged by lack of building maintenance

Another California Parent

No. School Buildings	9,237
No. Students	6,413,862
No. Minority Students	4,166,409
No. Students in Special Education Program	680,831
No. Employees in School System	557,143
% Children with asthma (under 18)	7.4%
% Schools with at least one inadequate building feature	71%
% Schools with at least one unsatisfactory environmental factor	87%
No. Students At High Risk Daily*	5,066,951
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Colorado



## The voice

**“A technician walked every area of the school with the monitor”**

My children’s school planned to paint and re-carpet. Over the summer the upgrades were completed. The school used low volatile organic compound (VOC) paint, ventilated extensively and purchased new HEPA filter vacuum cleaners.

After expressing my concerns about VOC outgassing and the effects on children’s health to the principal, she suggested that I present the information to the school board. Several EPA studies and research by various pediatricians were presented to the school board. The school board voted to form a committee to investigate the problem and the committee decided to have the air quality tested.

Our local fire department offered their VOC monitor to test the school at no charge. A technician walked every area of the school with the monitor. He found virtually no VOC’s and good overall air quality. In explaining his results, the technician cited ventilation and low VOC paint as beneficial for reducing VOC’s.

The leaky windows in our old school building allow for continuous ventilation even during winter months-when they are closed- further reducing the presence of VOC’s. The committee agreed the issue had been addressed and considered it resolved

Colorado Parent

## Lessons learned

-Parents should approach their school administrators with plenty of well researched, fact based information

-Parents should make every effort to minimize any emotional component and show a willingness to work together for the best possible solution

No. School Buildings	1,672
No. Students	757,693
No. Minority Students	268,351
No. Students in Special Education Program	75,618
No. Employees in School System	89,529
%Children with asthma (under 18)	7.7%
% Schools with at least one inadequate building feature	58%
% Schools with at least one unsatisfactory environmental factor	63%
No. Students At High Risk Daily*	458,404
State Education School Facilities Office	N
State OSHA Plan	N
State Grants for Construction	Y

# Connecticut



# The voice

## Lessons learned

Schools that effectively implement an ongoing indoor air quality (IAQ) program like EPA's *IAQ Tools for Schools* benefit from:

- Decreases in rates of absenteeism, use of inhalers, asthma episodes and overall health complaints
- Increases in student and staff comfort and productivity

Schools that do not have an IAQ program are more likely to:

- Defer maintenance and spend more money later on remediation or rebuilding
- Cause long and short term health problems for students and staff

For years the number one complaint received by the CT Department of Public Health (DPH) was from parents and employees concerned about poor air quality in schools. Building problems usually involved moisture incursions, mold contamination and a lack of ventilation. Among the health problems reported were headaches, fatigue, itchy eyes and asthma attacks. In 1999 the CT School Indoor Environment Team (CSIERT) was formed by the CT DPH as well as a consortium of groups including the American Lung Association of CT and the CT Education Association. Even before CT law mandated in 2003 that schools adopt and implement an indoor air quality program, the "Resource Team" was providing free training to assist school systems in the effective implementation of the EPA's Tools for Schools program. School systems such as Hamden, Chester, Hartford, North Haven and Waterford have been able to demonstrate measurable improvements in indoor air quality by using Tools for Schools. These improvements have included a significant reduction in absenteeism and a marked decrease in the use of student inhalers and in the number of asthma incidents. Every school in the country should adopt a high quality indoor environment program that includes a written IEQ management plan developed, implemented and evaluated by a trained IEQ coordinator and school-based team.

Former Teacher and IEQ Activist

No. School Buildings	1,250*
No. Students	577,203
No. Minority Students	182,036
No. Students in Special Education Program	69,829
No. Employees in School System	80,352
% Children with asthma (under 18)	8.6%
% Schools with at least one inadequate building feature	58%
% Schools with at least one unsatisfactory environmental factor	68%
No. Students At High Risk Daily*	363,638
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

\*ConnFESS reports 1,026 public schools

# Delaware



## Lessons learned

-Districts need reliable support for necessary construction and repairs

-Construction costs are not flat, and the delays in funding approvals by the state or by local entities can impact the construction timeline and thus the bid and actual costs

-Be wary of 'change orders' which may undercut desired health and environmental benefits

# The Event

## Plan Would Allow Temporary Tax Hikes for Del. School Construction

Dover, Del- A plan submitted to a state legislative committee would allow some school districts to temporarily raise taxes without voter approval when costs rise for major construction projects.

The cost overruns are being driven by recent price hikes for construction materials. The state routinely covers two-thirds of the additional cost, but at least six local districts do not have enough to cover the other third.

Under the plan submitted Tuesday by a state budget director, Jennifer Davis, the districts could raise taxes for the higher costs without voter approval. In some cases, supporters say it would cost the district more to hold a referendum than they would earn from the tax hike.

From: Delmarva's News Leader 3/29/2006

No. School Buildings	205
No. Students	177,668
No. Minority Students	Not available
No. Students in Special Education Program	17,171
No. Employees in School System	14,586
%Children with asthma (under 18)	11.9%
% Schools with at least one inadequate building feature	70%
% Schools with at least one unsatisfactory environmental factor	65%
No. Students At High Risk Daily*	119,923
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y

# District of Columbia



# The voice

## Lessons learned

-Older schools located in low income neighborhoods need recognition and repair in order to preserve environmental quality-In 1998, the Corps of Engineers surveyed the DC Public Schools and from a list of 105 elementary schools, they chose Cooke the Worst Elementary School Facility in the city – a considerable distinction, given the overall poor condition of the entire system

-Get involved and stay involved, in as many ways as you can – don't complain, but help

-Poorest children have the schools in the worst condition

**“This went beyond unpleasant or unhealthy – it was dangerous.”**

Our neighborhood polling place for as long as I can remember was HD Cooke Elementary School in Washington, DC. We'd go there every two years to vote, but I never really looked around and imagined what it would be like to be a student or teacher -I grew up in neighboring Montgomery County MD, went to a brand-new high school where you could eat off the floor. HD Cooke, on the other hand, was built in 1908 and had received very little maintenance since – the custodian had to nail the disintegrating windows shut so they wouldn't fall into the classroom.

In 1998, a neighbor who worked for Stand For Children persuaded me to take a quick 'photo tour' of the school with the Facility Manager – one of the first stops was the perpetually flooded Boiler Room, The Building Engineer showed us how he had to hit the Boiler Gas Valve with an iron pipe to start the boilers in the morning; this was on a 5" high pressure gas line that would have annihilated the kids upstairs if the valve were ruptured and the gas ignited. I realized that this went beyond unpleasant or unhealthy – it was dangerous.

I didn't really know what to do; my neighbor's roommate took my 4x6" prints to a City Council hearing that happened to be covered by Fox News. The next day, a reporter was standing with the Facilities Director in front of the school, in a week, an 18-month-old repair order was processed and the valve was replaced.

That got me thinking about how the kids on the block- why they chose to work for the local drug dealers and turned to crime instead of going to school. This is why good schools are a priority, not just for parents, but for society.

DC Children's Advocate

No. School Buildings	207
No. Students	78,057
No. Minority Students	Not available
No. Students in Special Education Program	13,263
No. Employees in School System	10,184
% Children with asthma (under 18)	11.8%
% Schools with at least one inadequate building feature	91%
% Schools with at least one unsatisfactory environmental factor	73%
No. Students At High Risk Daily*	64,007
State Education School Facilities Office	Y
Public Employee OSHA Plan	N
State Grants for Construction	Y

\*DC Smart Schools reports updated data: No. School Buildings= 147 plus charters (67); No. of students= 59,616 plus charters (17,398); adjusted No. students at high risk daily= 63,151

Florida



# The voices

## “All I did was send my little girl to a public school”

In the third grade they are still so small. She got sick right away! At open house I knew the portable classroom Megan was assigned to should have been condemned! I spoke with the Principal and tried to get her moved. I even went on record proclaiming, “I’m a parent with a portable child”, at every SAC meeting. She began to have eye infections, rashes, headaches, stomach pain, throat pain and a persistent cough! I went on television and wrote to everyone you could think of from the school board to the (federal) CDC. Other parents and teachers called me with horror stories. Our schools are falling apart, water damage from hurricanes breed molds!

The good ole’ boys in Tallahassee should spend a week in the substandard, toxic school conditions, then maybe then they’d claim some accountability and stop failing our kids.

### Lessons:

- Policy makers should visit schools regularly
- Organize- the more people advocating, the better
- Get everything in writing- verbal is no good, keep copies
- Go outside of the school to report- File written reports
- Use the internet- research group help

Florida ‘Portable Parent

## “Who wants their children to be exposed to more indoor environmental pollutants?”

Every child deserves to learn in a healthful and safe indoor school environment. Yet they are being unnecessarily exposed to toxic chemicals in cleaning products, paints, pesticides and mold on a daily basis with minimal oversight from outside agencies. How can a child learn if he/she is sick?

The health effects of many indoor pollutants are known, and others will not be known until too late. The trends are clear: 150% rise in asthma in the past decade, increased cancers, and environmental pollutants are known contributors.

Who wants or needs their children to be exposed to more indoor environmental pollutants?

### Lessons:

- Preventing problems is easier than fixing them
- Organize, organize, organize

Energized Parent Advocating Statewide

See next page for FL data

# Florida



No. School Buildings	3,529
No. Students	2,587,628
No. Minority Students	1,260,936
No. Students in Special Education Program	400,719
No. Employees in School System	270,746
% Children with asthma (under 18)	9.5%
% Schools with at least one inadequate building feature	57%
% Schools with at least one unsatisfactory environmental factor	80%
No. Students At High Risk Daily*	1,772,525
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y

# Georgia



# The voice

Al Boudreau, Facilities Director for Glynn County Schools, did a nearly super human feat over this last summer and has not received the credit or recognition he deserves. The Board of Education learned in April 2005 that Goodyear Elementary school soils were contaminated-enough to be included on Georgia's list of Hazardous Sites. Starting from scratch in May 2005, Al Boudreau contracted services and started to test the schoolyard to get a handle on the extent of the toxic soil problem.

Initial estimates were a few hundred cubic yards of soil. Once areas that would need removal were identified, they were removed and retested to see if cleanup goals had been reached. When clean up levels were not met, more was removed until goals were achieved. The few hundred cubic yards ballooned to 3500 as toxic soils were discovered much deeper than expected.

May, June, and July rushed by as the August 10th school- reopening date approached. The final soil removal took place late July, excavations filled with clean soil, and landscaping completed. While Al Boudreau put the final touches on the schoolyard, a report was prepared for the GA Environmental Protection Division.

Just to put what Al Boudreau did into perspective, the Hercules Plant was not able to determine the extent of the soil contamination after investigating for 18 years, and even less progress has been made on cleaning up their mess. Since Al Boudreau's acts, we have learned that the likely source of the contaminated soil was from the LPC Chemicals Superfund Site. Al has shown what a competent and determined person can do when they put their mind to getting the job done.

Hats off to Al Boudreau for a job well done.

GA Environmental Advocate

## Lessons Learned

-Superfund sites must be thoroughly investigated because the toxic chemicals CAN draft, seep, or get put onto schoolyards.

No. School Buildings	2,458
No. Students	1,552,611
No. Minority Students	729,218
No. Students in Special Education Program	186,342
No. Employees in School System	200,519
%Children with asthma (under 18)	9.6%
% Schools with at least one inadequate building feature	37%
% Schools with at least one unsatisfactory environmental factor	48%
No. Students At High Risk Daily*	647,109
State Education School Facilities Office	Y
State OSHA Plan	N/A
State Grants for Construction	Y

# Hawaii



# The voice

## Lessons learned

- People in Hawaii are largely unaware of environmental concerns, period, let alone children's environmental health and school grounds without chemicals.
- People of a minority race are sometimes less inclined to complain to government, even if it has to do with their family's health and well being.
- I have learned how terribly unjust our government has been to The Hawaiian people and I truly believe a form of cultural genocide is occurring here.

Hawaiian Parent

**“They are our future-they deserve a clean, peaceful and safe environment”**

In 2000, my son developed exacerbated asthma, migraines, nausea and fibromyalgia. At the pediatrician, I met a neighbor whose son was similarly affected; he showed me websites regarding Toxic Air Pollution. It seemed our neighborhood was completely surrounded by facilities emitting unmonitored amounts of chemicals-unmonitored because these were “small” facilities. Our elementary school, two preschools and a Language Immersion School, sit in the center of our neighborhood. The elementary school has had poor test scores for 25 years (the airport was enlarged in this time period) and the principal was recently removed for his lackadaisical attention to the matters at hand.

As a community we are trying to best help our “Keiki” realizing that they are our future-they deserve a clean, peaceful and safe environment. A casual health survey of the neighborhood showed just cause for investigation; an asphalt plant as well as an illegal fuel depot was recently closed.

This is a Hawaiian Homestead: the situation is called ‘Environmental Justice’ and we don’t feel protected at all.

Hawaiian Parent

No. School Buildings	284
No. Students	183,609
No. Minority Students	146,540
No. Students in Special Education Program	22,533
No. Employees in School System	21,061
% Children with asthma (under 18)	11.8%
% Schools with at least one inadequate building feature	57%
% Schools with at least one unsatisfactory environmental factor	78%
No. Students At High Risk Daily*	123,936
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Idaho



## Lessons Learned

- Idaho taxpayers and schools have an opportunity to invest in healthy and high performance school design, to increase indoor air quality, energy efficiency, and test scores.

# The Event

## School Facilities Bill Passes the House

A construction bill that passed the House on Wednesday won't increase the state's portion of the proposed Twins Falls School District bond, but it will provide additional funds for school buildings in all districts.

The School Facilities Improvement Act is the legislators answer to an Idaho Supreme Court ruling forcing the state to revise the way it funds the building of schools. Under the bill, the state will come up with about \$5.6 million in 2007 to go toward maintaining school facilities. The Legislature will set aside \$25 million that could be used in loans to school districts. The House voted 52-14 to send the bill to the Senate.

From: Times-News, Michelle Dunlop, 2006

No. School Buildings	691
No. Students	252,120
No. Minority Students	40,160
No. Students in Special Education Program	28,841
No. Employees in School System	25,137
%Children with asthma (under 18)	5.7%
% Schools with at least one inadequate building feature	56%
% Schools with at least one unsatisfactory environmental factor	64%
No. Students At High Risk Daily*	151,272
State Education School Facilities Office	N
State OSHA Plan	N/A
State Grants for Construction	Y

# Illinois



## Lessons learned

-Some schools will take action, but they have to be informed

-IAQ committees within schools can be very beneficial and effective in addressing health concerns of building occupants

-People must come forward and talk about what they are experiencing

## The voice

**“Many people are afraid to speak up because they don’t want to be seen as complainers.”**

As a science teacher I am not someone to allow a problem to go unaddressed. My training as a microbiologist taught me that just because you couldn’t see something, didn’t mean it wasn’t there.

In the case of my classroom at Naperville Central High School, that something consisted of contaminants that aggravated her sinuses. It became so bad I considered leaving the profession I loved. Not even multiple surgeries helped. As many as 40% of my colleagues reported persistent respiratory symptoms too.

Armed with a letter from my doctor, I went to her administrator. As a result, they set up an IAQ committee to investigate and solve IAQ issues; they eventually renovated the building. Naperville’s efforts were recognized nationally by the EPA for excellence in 2003.

Many people are afraid to speak up because they don’t want to be seen as complainers. But things will only change if people come forward and talk about what they’re experiencing.

Illinois Science Teacher

No. School Buildings	4,416
No. Students	2,100,961
No. Minority Students	895,179
No. Students in Special Education Program	316,733
No. Employees in School System	132,794
% Children with asthma (under 18)	7.6%
% Schools with at least one inadequate building feature	62%
% Schools with at least one unsatisfactory building condition	70%
No. Students At High Risk Daily*	1,386,634
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	N

# Indiana



## The voices

### Sunnyside Elementary Carbon Monoxide Poisoning

At the request of the Henry County Health Department, IKE's Tom Neltner served as mediator/consultant to evaluate the situation at New Castle's Sunnyside Elementary School. The school has an unusual situation where each classroom has its own furnace. The furnaces were over 25 years old.

The school was closed after a teacher collapsed and students exhibited the symptoms of carbon monoxide poisoning. While carbon monoxide was detected at various times in the indoor air, the levels did not exceed recommended indoor or outdoor air quality standards.

About 100 parents, staff and faculty as well as school leadership attended the three-hour session. Keeping the kids' best interests in mind, the school district replaced all of the furnaces and found cracks in 11 of the 13 units. IKE congratulates the school superintendent, facilities manager, staff and concerned parents who worked through the issues to a reasonable resolution.

From: Improving Kids Environment, April 2004

### Indy High School Evacuated Due to Pesticides

On March 7, a maintenance worker at a high school in Indiana accidentally switched the herbicide he intended to use with the organophosphate insecticide, Dursban, in order to kill the spring weeds. Then the worker proceeded to spray it on the grass while school was in session — right outside the open cafeteria windows. The school was evacuated when the pesticide was sucked into the ventilation system.

Five adults and one student were hospitalized, but they were not seriously hurt. It is unlikely that the worker had received specific training to use the pesticides.

Indiana's recommendations would have made difference for students at this Indianapolis public school — had the school followed them. The training requirements could have prevented the problem. Training would have helped the worker better understand the implications of switching the insecticide for the herbicide and how to properly apply the mixture.

The prohibition on using pesticides during schools hours would definitely have prevented it. Spraying pesticides during school hours, two hours before, and one hour after is prohibited under the recommendations.

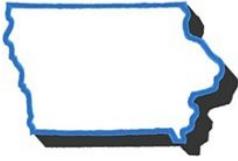
From: Improving Kids Environment, Dec 2005

## Lessons learned

It's easy to prevent harm. It is harder to undo harm.

No. School Buildings	1,986
No. Students	1,011,130
No. Minority Students	186,754
No. Students in Special Education Program	170,754
No. Employees in School System	127,754
%Children with asthma (under 18)	10.9%
% Schools with at least one inadequate building feature	56%
% Schools with at least one unsatisfactory environmental factor	67%
No. Students At High Risk Daily*	621,845
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	N

# Iowa



## Lessons learned

-Both school personnel and parents of students need to be involved in school environmental health and safety

-States with facility offices can set regulations to protect school occupants from construction hazards

# The voice

**“The roof has been leaking for at least three years and the carpets smell like musty dumpsters.”**

I am working in an inner-city high school in Iowa. We are currently undergoing major reconstruction-inside and outside of the building. The construction takes place during the school day. It’s common to have jack-hammers going on the outside walls or under the floor of the classroom. Construction workers are transporting wheelbarrows loaded with old plaster (and other debris from the walls and ceilings) through the building out to dumpsters in the back while school is in session. Naturally, there is dust cloud of who-knows-what as a constant irritant. The roof has been leaking for at least three years and as our recent snow is melting again the rooms and their 10 year old carpets smell like musty dumpsters. Windows are boarded up and utility lights like (the ones hung when doing car repairs) are the only light source hanging from the ceiling, which has exposed duct work, pipes, and electrical cords. Administrators want the chain of command to be followed, but their attitude is to grin and bear it. Teachers who have spoken to outside sources have been reprimanded. The union can only intervene if someone is willing to file a grievance. The bottom line is teachers have gone through the chain of command; there have been few changes. It seems we will only have power when something dramatic and life-threatening happens.

Iowa School Teacher

No. School Buildings	1,495
No. Students	481,226
No. Minority Students	56,885
No. Students in Special Education Program	63,886
No. Employees in School System	63,992
%Children with asthma (under 18)	6.5%
% Schools with at least one inadequate building feature	50%
% Schools with at least one unsatisfactory environmental factor	67%
No. Students At High Risk Daily*	281,517
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	N

# Kansas



## Lessons learned

-Airborne allergens are going to arrive from the outside air every time the students and teachers return to the room. This is not a building problem; it is a people density problem

-The health care costs because of these issues can typically run \$200 to \$300 per month for up to 40% of the class population.

-HEPA air filter can have substantial benefits and financial payback. Allergens arrive on the students in every classroom

-Teachers and students do perform better in cleaner classroom air

## The voice

**“The average class was spending \$2,000 to \$3,000 per month on health costs related to allergies.”**

There were repeated regional and national news stories from parents and staff about schools fighting sick-building syndrome. This led us to do investigation on airborne allergens. We found that when they get stirred into the air, and are inhaled, upper respiratory tract infections (URI's) are the result along with allergy symptoms and more serious health problems.

We installed low-cost, high-volume ceiling fan HEPA air filtration system in about 70 classrooms in 8 schools that filtered all the classroom air about 40 times per hour. Amazing things happened to the way students and teachers felt in class; they needed medication like inhalers and daily allergy meds a lot less often. Filtering the air produced very positive results in new and old schools. The average class was spending \$2,000 to \$3,000 per month on health costs related to allergies, asthma and repeat URI's. The air cleaning system cost only \$400 to \$800 with \$10 per month on-going filter costs- it only takes a modest improvement in class health to generate a huge payback. We are working with other schools to put air filtration systems in their classrooms. More researchers are joining in these studies to gather more controlled test results and measure the impact on attendance, health costs and student achievement.

Concerned Engineer

No. School Buildings	1,413
No. Students	470,490
No. Minority Students	109,208
No. Students in Special Education Program	65,092
No. Employees in School System	60,388
%Children with asthma (under 18)	10.6%
% Schools with at least one inadequate building feature	55%
% Schools with at least one unsatisfactory environmental factor	74%
No. Students At High Risk Daily*	303,466
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Kentucky



## Lessons learned

-Schools must have anti-bullying policies that are effective and enforced, especially to protect students with health and other disabilities

-Schools are required under federal law to provide a free appropriate public education for all students, even those with health impairments

## The voice

**“Our daughter cries.  
We will pursue further action.”**

The 16 year old cries when she thinks about what she's missing while confined to the house. She hasn't been to school since she reported that a campus bully sprayed her in the face with perfume a year ago, causing a severe asthma attack that landed her in the hospital.

She is afraid to return to school until administrators ban perfume, cologne, and other smelly aerosol sprays that could be used as weapons against asthmatics.

The parents intend to continue our action until the school district provides necessary accommodations to ensure that she will be safe. The school board rejected a proposal last fall (2005) to ban students from bringing cologne, body spray or perfume to school.

The situation has set off another “cosmetics” debate in a school district that actually suspended a student five years ago for wearing black lipstick.

From: [www.n-jcenter.com](http://www.n-jcenter.com), October 2003

No. School Buildings	1,438
No. Students	663,885
No. Minority Students	82,314
No. Students in Special Education Program	103,709
No. Employees in School System	88,284
%Children with asthma (under 18)	10.2%
% Schools with at least one inadequate building feature	59%
% Schools with at least one unsatisfactory environmental factor	63%
No. Students At High Risk Daily*	404,970
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Louisiana



## Lessons learned

- There are no standards to protect the public, especially vulnerable populations, from the hazards of reoccupying contaminated homes, schools and other private and public buildings.
- Children are not adults. Children need to be prohibited from encountering or protected from occupational health risks, especially when volunteering on hazardous clean-up crews.

# The voices

The coastal areas of Louisiana that were hard hit by Hurricanes Katrina and Rita offer striking examples this spring in how children are not even considered for 'worker' protection, while adults are. This year, thousands of student-volunteers, some as young as 14, like a middle-schooler from Massachusetts, are at risk of developing acute and life-long environmental and occupational diseases as they joined recovery workers and resident volunteers doing demolition and clean up work in hurricane-damaged and flood-contaminated areas.

PTA Activist

After 9/11, no agency had standards for 'clearing' a building for safe re-occupancy by children. Four years later, there is still no answer, creating more headaches for families who want to return.

Healthy Schools Advocate

Neighborhoods in the New Orleans area have dangerously high lead levels, and one residential neighborhood around the old Agriculture Street landfill has high levels of a cancer-causing petroleum constituent, federal and state environmental regulators said Tuesday, as they released the latest results from contamination tests following Hurricane Katrina.

From: New Orleans Times-Picayune, April 5, 2006

No. School Buildings	1,551
No. Students	727,709
No. Minority Students	375,099
No. Students in Special Education Program	101,288
No. Employees in School System	102,989
%Children with asthma (under 18)	10.7%
% Schools with at least one inadequate building feature	50%
% Schools with at least one unsatisfactory environmental factor	66%
No. Students At High Risk Daily*	422,071
State Education School Facilities Office	N
State OSHA Plan	N
State Grants for Construction	N

# Maine



## The voice

### The Cost of High Hazard Chemicals at School

Maine funded a chemical clean-out program in the early 1990's, but most schools did not take advantage of the opportunity. From 2002 through 2004, the Maine Department of Environmental Protection (DEP) did some level of chemical clean-out in 80 of the approximately 452 middle and high schools in Maine through a DEP program that paid for the disposal of any mercury or mercury containing instruments and the transportation costs of the hazardous waste contractor. Some schools took the opportunity to do a complete clean-out; others did not due to perceived budget constraints or unknown other reasons.

In 2005, the Maine Legislature approved Chapter 93, Resolve, Directing the Department of Education and the Department of Environmental Protection To Implement Procedures To Remove Hazardous Materials from Maine Schools.

In response, the Department of Education (DOE) required all Maine's middle and high schools to inventory laboratory chemicals annually. In addition, schools are required to have a Chemical Hygiene Plan and a designated Chemical Hygiene Officer who is an employee of the school. The State is providing chemical management training through a joint effort of the Departments of Labor and Environmental Protection. The two agencies have also collaborated on the development of a model Chemical Hygiene Plan which is provided to schools on both agencies' web sites, and DEP developed an electronic inventory form to further assist schools with chemical management.

To ensure the best use of scarce resources, and increase them to much needed levels to improve children's everyday environment, requires action from a wide variety of people and organizations including government agencies at all levels, school administrators teachers and staff, parents and members of the community. It will take all of us to make schools safe and healthy places!

Former Teacher and IAQ Activist

## Lessons Learned

- Schools should adopt Environmentally Preferable Purchasing Policies to avoid re-introducing high hazard or toxic chemicals and to avoid future disposal costs. ALA of ME's Environmental Management System includes chemical management.

No. School Buildings	694
No. Students	202,084
No. Minority Students	8,472
No. Students in Special Education Program	33,514
No. Employees in School System	35,865
% Children with asthma (under 18)	10.6%
% Schools with at least one inadequate building feature	60%
% Schools with at least one unsatisfactory environmental factor	71%
No. Students At High Risk Daily*	132,365
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y



## The voices

### “Who isn't allergic to mold? It isn't healthy for anyone.”

My son attended a public school in Michigan for preschool and flourished. Then my family moved to Bethesda, Maryland for my husband's job. At the beginning of the kindergarten year my son had a lot of breathing problems and at his first parent conference the teacher told me that he is always sneezing and has a runny nose in class. She asked if he was allergic to molds because the school had some mold problems. I said “Who isn't allergic to mold? It isn't healthy for anyone”. As the year went on, he was only using his breathing machine on school days and never on weekends or school breaks. I approached the principal who made me feel like I was nuts and stated that there was no mold issue. By spring, we headed back to Michigan for the summer and put my son back in school there; he was never sick again that year.

I knew we would be going back to our home in Bethesda in the fall, so I requested a school transfer explaining my son's health issues and was rejected! I was furious! Here we owned a new, expensive home that we paid taxes on, and my son is supposed to go to a moldy, disgusting school. I felt beaten and didn't have a clue of how to change the situation. I talked to a lawyer who suggested appealing. I did just that; we won our case after threatening to bring the media into the picture. We moved our son to the newer school less than a mile away. We were happy, but I still felt like we didn't win at all because there were other children being subjected to the conditions at Bethesda elementary.

I strongly urge parents to follow their best instincts and fight for all of our children to be able to learn in healthy environments. I made sure that every parent I knew at Bethesda elementary school heard my story and my opinions on the state of the school their children were occupying. The following year my neighbor told me the principal at the old elementary school finally admitted that there was a mold problem in the school. I wish I could have gotten that in writing!

A Victorious Mother

### My children need their civil and educational rights enforced.

Ten years ago, my two children became hypersensitive to pesticides and other chemicals while enrolled at an elementary school that was routinely treated with DURSBAN. Prior to attending this school, neither child had any allergies or medical conditions.

Since 1997 we have tried to put some protections in place at the school level, including attempting to obtain (accommodation) 504 Plans. We also worked successfully in the effort to adopt Integrated Pest Control legislation for public schools in Maryland. School IPM laws now exist in Maryland, but to date nothing we have pursued at the local level to control or remove hazardous chemicals has been successful. Our children continue to be injured at school due to avoidable contact with hazardous materials. These incidents not only cause physical harm, pain and injury, they are barriers to education. Each child has experienced extensive medical absences following such exposures, often with little or no academic support from the school.

Instead of addressing the problems, the problems are suppressed and the school threatens us with child neglect and truancy charges- including threats of jail time.

The children are denied protection because the district bases its criteria on whether the condition **substantially limits education**, not on whether it substantially limits basic life functions. My children can continue to be injured at school because they maintain a high grade-point averages. Apparently in this public school system, students deserve protection only if they fail academically. All children, even smart kids, deserve to go to school without fear of harm or injury. Children should not have to pay for their education with their health and their parents should not have to give up professional work, make emergency trips to school, and pay avoidable medical bills, just to educate their children.

PTA Officer and Parent

# Maryland



## Lessons learned

- Children are legally obligated to attend school, but they are not entitled to legal protection from exposure to known hazardous chemicals while there
- Make your children's health and well-being a priority. Listen to your children when they complain about health problems. Track health problems daily, especially if the problems increase when they are in school and subside when they are not. Look for patterns: changes in health and performance.
- All students can be routinely exposed to known hazardous materials while they are in school. These materials can be used in such a way that the students and staff can come in contact with the material or its residues. Yet, effective alternatives to highly toxic pesticides and cleaning products are easy to find and use.
- Unfortunately, some school administrators can hinder proper interpretation, monitoring and enforcement of existing federal or state laws. Schools can—
  - 1 classify absences as truancies and threaten parents
  - 2 request that Child Protective Services investigate the parents
  - 3 pressure parents to remove children from the public school system
  - 4 ignore the parent's documented complaints or physician letters
  - 5 refuse to approve or to implement accommodation plans, resulting in costly delays in educational services or in health protections
- Lack of communications between administrators, maintenance, custodial, construction/renovation and pest control departments can cause situations where students and staff are placed in harm's way
- Common problem: principals not aware of facility workers in the school or what they are working on

A Maryland Parent

No. School Buildings	1,408
No. Students	869,113
No. Minority Students	430,663
No. Students in Special Education Program	108,141
No. Employees in School System	102,470
% Children with asthma (under 18)	10.4%
% Schools with at least one inadequate building feature	67%
% Schools with at least one unsatisfactory environmental factor	65%
No. Students At High Risk Daily*	573,614
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Massachusetts



## The voices

**“My daughter is affected by IAQ, she must be in school,  
and the building is held up by cables and jacks.”**

Southbridge, MA is a town of about 17,000 residents near the Connecticut border, a town that lost thousands of manufacturing jobs in the late 1980s and early 90s. The schools have suffered from lack of support from local community leaders. Mike is a parent who has mobilized neighbors and the town to support the public schools but he has had to focus on getting his daughter through high school in a sick building.

Poor air quality, including high carbon dioxide levels, has made his daughter's chronic health problems worse causing her to miss most of her first 3 years of high school. “Some of the problems we face are broken ventilations systems, lack of maintenance, mold and water infiltration through the roof and old broken windows. After years of complaining, the school recently ordered high efficiency filters for the old univents and is putting together an IPM plan and monitoring its asbestos plan.

Meanwhile there are parts of the building that are being held up by hydraulic jacks and suspension cables to keep the library from slipping... Said Mike, “Not only has my daughter's health been jeopardized by these conditions, but the school system's struggle to improve education while experiencing some of the biggest budget cuts. We need to recognize that healthy school building condition is an important part of providing a ... decent education. We need to hold our healthy school building standards at least as high as the educational standards we are demanding our kids to meet within these buildings.”

Mobilizing Dad in Massachusetts

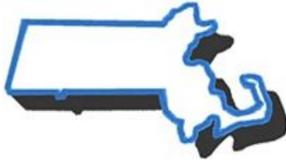
### **Was the worst, now the best.**

It is both the worst and the best example of the problem and its solution. Westborough Schools went from being a horror story, featured on ABC's *Good Morning America* with the title "Girl's Illness Traced to Toxic School," to become an authentic living model of community improvement that everyone is proud of. Thanks to the combined efforts of School Committee members, officials, employees, and parents, the schools are now a success story that proves that good documentation, open communication, transparent decision making, high standards for health and safety, and parent involvement can be keys to real improvements.

Westborough now has a successful system of self-inspection, documentation, and accountability for repairs and remediation. Everyone shares responsibility for monitoring conditions and contributing to maintenance and improvement. It avoids expensive problems and reduces risk of illness and school disruption. Everyone understands the benefits of fixing air quality problems before they become health problems.

MA-PTA Parent and Health Advocate

# Massachusetts



**“We know what the problem is and we have the findings, so why does it take so long to get repairs done? It should be about the health of our children. The money should be in the budget to fix our schools.”**

The Boston Urban Asthma Coalition (BUAC) and the Massachusetts Coalition for Occupational Safety and Health (Mass COSH) conducted a preliminary analysis of childhood asthma rates for Boston Public School (BPS) students and compared them to the 2004-5 environmental audits of the top 10 schools with environmental problems. Parts of Boston have five times the state average for childhood asthma hospitalization rates, with children of color having much higher rates. BPS students are primarily children of color. Some of the findings:

- Inspections of schools with high asthma rates noted an overwhelming presence of environmental issues which contribute to the incidence of asthmatic children in schools.
- Approximately 85 percent of Boston Public Schools reported leaks or water stains; 36 percent reported visible mold growth; 63 percent reported overt pest signs; 83 percent reported repairs needed; 61 percent reported improper chemical storage.<sup>1</sup>

To address concerns about poor school conditions and health, the BUAC and Mass COSH won compliance with a 1996 ordinance stating that Boston Public Schools must conduct bi-annual environmental inspections for all schools in 2002. Another outcome was the creation of a citywide Healthy Schools Taskforce. This taskforce will continue to address the issues raised by this report which can be read in full, along with recommendation for City and State officials at: [www.masscosh.org](http://www.masscosh.org)

BUAC Parent Leader

## Lessons Learned:

- MA suffers from: 1) lack of enforcement of regulations; 2) lack of budgeting and funding at the state and local level to enable schools to comply with regulations and best practices; 3) lack of coordination between environmental health and safety agencies and the Department of Education.

- There needs to be technical assistance from the DOE on school environmental safety as well as incentives in place to address all the factors that contribute to struggling schools.

No. School Buildings	1,867
No. Students	980,459
No. Minority Students	249,148
No. Students in Special Education Program	154,391
No. Employees in School System	102,241
% Children with asthma (under 18)	10.2%
% Schools with at least one inadequate building feature	75%
% Schools with at least one unsatisfactory environmental factor	80%
No. Students At High Risk Daily*	759,856
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y

# Michigan



## The Issues

**LANSING** -- Students attending classes in districts with low property values must contend with leaky roofs, poor air quality, over- and under-heated rooms and even sewage smells emanating from a seeping septic field, school officials testified Monday. That's not fair to Michigan schoolchildren in those districts, said **Sen. Ron Jelinek**, R-Three Oaks. Jelinek is chair of the Senate Appropriations subcommittee on educational spending, which held a daylong hearing on infrastructure problems. Jelinek said he hopes to craft legislation this year addressing the disparity between school conditions in wealthy and poor districts. "I think the problem is pretty obvious," he said. "I don't think most people would argue with the need." He said the answers, however, are far less clear.

Many of the fixes offered Monday involved statewide tax increases, such as a statewide property tax or sales tax. Those are considered a difficult, if not impossible, to sell in the GOP-controlled Legislature. Some school officials said the disparities are painful, and unfortunate for school districts losing students to charter schools or schools of choice. River Valley **Superintendent Chester Sanders** said one of two wells serving the River Valley High School in Southwest Michigan was closed because of arsenic contamination and a septic field has been damaged by cars driving over it at football games. "You can certainly smell the odor," he said.

From: Mlive.com, March 21, 2006

Grand Rapids school administrators are reviewing an incident that forced 300 students from their classes. It happened around 10 am this morning at Ken-O-Sha Elementary.

A custodian discovered a leak from the school's pool had mixed with some chemicals in a storage area. Some potentially hazardous fumes and smoke were filling the air, so students were evacuated as a precaution. Many of Ken-O-Sha's student's have special needs. We're told all handled the incident just fine and were returned to school two hours later when it was determined safe. They were dismissed at the end of the day as usual.

From: WZZM radio broadcast, Grand Rapids, MI, October 15, 2005

## Lessons Learned

- "The poorest children occupy the schools in the worst condition" (US GAO, 1996)

-Using less toxic chemicals reduces hazards

No. School Buildings	4,008
No. Students	1,757,604
No. Minority Students	478,955
No. Students in Special Education Program	244,610
No. Employees in School System	106,312
%Children with asthma (under 18)	10.0%
% Schools with at least one inadequate building feature	52%
% Schools with at least one unsatisfactory environmental factor	61%
No. Students At High Risk Daily*	993,046
State Education School Facilities Office	N
State OSHA Plan	Y
State Grants for Construction	N

# Minnesota



# The voice

## Lessons learned

-The escalating cases of autism disorders and the special needs of this population should be emphasized in school design, acoustics, sizing, and operations

-The needs of children in special education and with health impairments must be addressed in school facility design and maintenance

**“Too many kids, too much noise, too much distraction”**

Schools and noise, the two go hand in hand. Many don't see this as a problem, but what about those children who are profoundly affected?

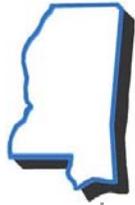
My son is autistic. He is out of the mainstream 80% of the time, dividing his day between several school programs. He is in the Compass program, a restricted classroom with 5 other kids; the small number and relative quiet helps him cope. He spends some time in the special ed “Learning Center”, an internal classroom with no windows (which he hates) and about one hour is spent in the mainstream classroom. Hallways are hard, lunch is hard, and recess is hard.

He even rides the small special ed bus home because the big bus carries the same problems as the big school.

Minnesota Special Education Parent

No. School Buildings	2,552
No. Students	842,854
No. Minority Students	166,950
No. Students in Special Education Program	113,828
No. Employees in School System	103,745
% Children with asthma (under 18)	6.2%
% Schools with at least one inadequate building feature	57%
% Schools with at least one unsatisfactory environmental factor	66%
No. Students At High Risk Daily*	518,355
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Mississippi



## Lessons Learned

- Schools everywhere need ongoing support for emergency repairs
- Schools everywhere need special funds to dispose of products and to clean-up toxic spills

# The Events

## Schools Spring Leaks

Foul weather from seasonal thunder storms has taken its toll on some of the roofs within the McComb School District, superintendent, Dr. Pat Cooper told trustees. "There are some massive leaks in a couple of these places that are endangering our health", Cooper said. One of them is Denman junior high school band room, where Cooper said the constant rainfall, collecting on the flat roof has resulted in less than healthy conditions. "I have to say, I was appalled when I walked in there this morning, the chairs and the instruments had mold growing on them". Leaky roofs plague the school cafeteria at Kennedy Elementary School. School officials must cough up an estimated \$20,000 to fix the leak at Denman's band room and patch other leaks at Denman, McComb High and Oktken Elementary. ....

From: enterprise-journal.com, August 15, 2001

## Mercury Spill Costs \$200,000

### Hancock High School, Kiln, Mississippi

On September 10, 2003 at the request of the Mississippi Department of Environmental Quality (MDEQ) an emergency response removal commenced at the Hancock High School, Hancock Co. Votech facility, and the Charles B. Murphy Elementary School located in Kiln, Mississippi. The response was conducted by the MDEQ, EPA, and Coast Guard.

Mercury air concentrations were measured and found to be above EPA levels. Contaminated areas were cleaned up using a spill control product and a mercury vacuum system. Three school buses were contaminated with mercury. The seats and flooring were removed. After a thorough cleaning of the buses, all seats were wiped down and the flooring disposed. Children's clothing was tested and some disposed. Private residences were screened and none were found to exceed EPA's action level. Mercury contaminated debris was transported as hazardous waste for disposal. Total cleanup costs were \$200,000.

News: Natl' Clearinghouse for Educational Facilities  
[www.edfacilitites.org](http://www.edfacilitites.org)

See next page for MS data

# Mississippi



No. School Buildings	1,051
No. Students	493,540
No. Minority Students	260,269
No. Students in Special Education Program	66,727
No. Employees in School System	64,515
%Children with asthma (under 18)	9.1%
% Schools with at least one inadequate building feature	50%
% Schools with at least one unsatisfactory environmental factor	54%
No. Students At High Risk Daily*	256,641
State Education School Facilities Office	Y
State OSHA Plan	N/A
State Grants for Construction	Y

# Missouri



## Lessons learned

- Your child has rights.
- Don't give up on getting your child's needs accommodated and education needs fulfilled.

## The voice

**“The school is well aware of her condition as well as the doctor’s orders to stay out of school.”**

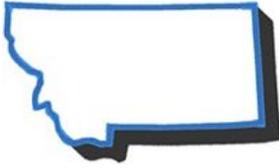
My daughter had been missing one day of school per week for 3 months because of her extreme bouts with chronic illness. She was sent home several times complaining of severe headaches, which would normally fade after some time at home. When the chronic illness including migraines, upper respiratory infections, congestion, asthma and other symptoms increased we scheduled a doctor’s appointment; the doctor recommended that she stay home from school for 2 weeks to rebuild her strength. We have to be extremely cautious in managing her asthma because she is allergic to a lot of the medications that help, so we followed doctor’s orders without hesitation.

Shortly after her school absence, I discovered that the school had reported me to Social Services for educational neglect! This was a shock because the school is well aware of her health problems as well as the doctor’s order to stay out of school, however, they fail to acknowledge either one. The school nurse has failed us and forming a support group with other parents has been impossible because the school has made me out to be the bad guy. I’m not sure where to start.

Distressed but Not Defeated Missouri Parent

No. School Buildings	2,372
No. Students	905,941
No. Minority Students	201,670
No. Students in Special Education Program	144,752
No. Employees in School System	126,107
%Children with asthma (under 18)	8.7%
% Schools with at least one inadequate building feature	54%
% Schools with at least one unsatisfactory environmental factor	58%
No. Students At High Risk Daily*	507,327
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	N

# Montana



## Lessons learned

- State leaders should adopt health-promoting policies.
- Policies on chemical management can guide schools.

## The voice

### Selected Policies on School Health

Montana does not have education policy regarding the administration of medications.

State Code 20-3-324 (1997) does, however, give a physician or a registered nurse the responsibility to inspect the sanitary conditions of a school or the general health conditions of each pupil, and make health records available to any parent or guardian upon request.

Montana does not require schools or districts to identify students with asthma.

From: [www.nasbe.org/healthyschools](http://www.nasbe.org/healthyschools)

### School Lab Inventories Surveyed

Science Classrooms in Montana's schools have chemicals from A to Z on their shelves and the assortment includes some that are dangerous and perhaps unnecessary, the state Department of Environmental Quality said. The agency released results of a survey that asked 406 middle and high schools in Montana to inventory their supplies of chemicals. Half of the 146 schools responding to the survey reported having more than 120 chemicals, and Reinke acknowledged some advanced chemistry classes may need chemicals beyond those on the core list. The survey found Montana schools to have as few as 2 and as many as 432 chemicals present. Reinke said expense is one of the difficulties in disposing unwanted chemicals. He noted that one school, informed him Friday that it received a bid of \$8,000 for laboratory cleanup. DEQ is unable to offer cash assistance and the financial burden rests with the school districts, he said.

From: [www.edfacilities.org](http://www.edfacilities.org), March 14 2005

No. School Buildings	860
No. Students	148,356
No. Minority Students	22,062
No. Students in Special Education Program	19,267
No. Employees in School System	13,848
%Children with asthma (under 18)	7.1%
% Schools with at least one inadequate building feature	45%
% Schools with at least one unsatisfactory environmental factor	69%
No. Students At High Risk Daily*	84,563
State Education School Facilities Office	N
State OSHA Plan	N
State Grants for Construction	N

# Nebraska



## The voice

COLUMBUS - The construction project at Columbus High School has at least one parent concerned over his daughter's health. Carl Munford claims the dust, fumes and other airborne materials from the renovation project have caused his daughter to have asthma attacks, one so severe that she had to be taken to the hospital and admitted overnight. His daughter, who is a senior at the school, has had asthma all her life, but Munford said it has usually been kept under control - that is, until last September when the construction started.

Munford said his daughter was attending class on Sept. 10 when she requested to see the school nurse because of breathing problems. When she arrived at the nurse's station, her lips were blue, and she needed life-saving treatments administered to her at the school, he said. She was then taken to the hospital where her blood was re-oxygenated. That asthma attack was one of the most severe she had experienced, Munford said. "She never had one like that before ever. We are usually able to get her stabilized," he said. CHS Principal Amy Romshek said she has personally been contacted by three parents who are concerned about their child's health because of the construction. Since the \$17.68 million renovation project began, there have been about 15 students who have come into the nurse's office complaining about asthma and allergies due to the dust, said school nurse Jean Kamrath.

Among the precautions being taken are hanging plastic sheets and boarding up areas where construction is taking place, changing air filters more frequently, bringing in another janitor to assist in cleaning and using large fans to suck the dust out of the air, Romshek said. Some students' class schedules have also been rearranged to keep them out of areas where construction is taking place. According to the Nebraska Department of Education's Rule 59, Nebraska schools are required to have an asthma emergency protocol program in place. Schools also are supposed to provide a safe and secure environment for students under Rule 10 ....

"The only reason I'm threatening legal action is for safety," he said.

From: Columbus Telegram.com, by Julie Blum, 2006

## Lessons Learned

-Fumes and dust impacting occupant health must be avoided.

-Preventative public health actions are better than a lawsuit.

No. School Buildings	1,248
No. Students	285,452
No. Minority Students	58,499
No. Students in Special Education Program	45,825
No. Employees in School System	40,389
%Children with asthma (under 18)	6.8%
% Schools with at least one inadequate building feature	44%
% Schools with at least one unsatisfactory environmental factor	61%
No. Students At High Risk Daily*	149,862
State Education School Facilities Office	N
State OSHA Plan	N
State Grants for Construction	N

# Nevada



## Lessons learned

-Investigate pesticide practices in your school district

-Integrated Pesticide Management is a method that has proven to be safe and effective

# The voice

## “I was pleased to find out that the school district practices Integrated Pesticide Management”

One of my children is in second grade and the other will be entering the schools system before we know it. I had long been concerned with the schools use of pesticides and pest control practices. I initially contacted the superintendent who referred me to the plant manager.

I was pleased to find out that the school district practices Integrated Pesticide Management (IPM), meaning they only do spot spraying for dandelions (no mass pesticide use). As for pest control, they set out traps for evidence of pests. The school even takes it a step further to call and inform me of the scheduled spot sprays, so I can keep my children home if I so choose.

IPM is the best option for this school district because it is growing rapidly and there will soon be many more children and staff at stake.

Pleased Nevada Parent

No. School Buildings	558
No. Students	385,401
No. Minority Students	189,721
No. Students in Special Education Program	45,201
No. Employees in School System	31,659
% Children with asthma (under 18)	6.9%
% Schools with at least one inadequate building feature	42%
% Schools with at least one unsatisfactory environmental factor	57%
No. Students At High Risk Daily*	190,773
State Education School Facilities Office	N
State OSHA Plan	Y
State Grants for Construction	N

# New Hampshire



## The voice

My own path to appreciating the value and importance of a high quality indoor environment in schools started with a love and respect for the out-of-doors and the need to clean up the messes that were – and sadly still are, in many cases – our rivers, urban landscapes, and polluted air sheds. That was an effort to clean up mistakes already made, to sort of “mop up” the pollution after it was already out in our living environment. Gradually, along with many others, it became clear that to be effective and sustainable, efforts to clean up pollution must focus on prevention and keeping the “gunk,” whatever it is, out of our living spaces in the first place. Energy, and the inevitable pollution that comes with supplying heat and power with conventional fossil fuels, quickly became a focus of mine and for the last 30 years I have been involved in trying to move society away from dirty fuels to clean ones, to energy resources that provide heat and light and power without polluting our air, land, and water, that are renewable and local and don’t involve long transportation supply lines, complex security measures, and volatile prices.

Indoor air quality has a direct connection to outdoor air quality, especially in schools where cost-cutting often affects land acquisition and siting relative to highways and industrial plants, where ventilation design can be short-changed, where pesticide applications can be tracked into the building, etc. Energy efficiency, and all that is involved in making a building tight and comfortable, is also a prescription for improving indoor air quality because high performance, energy-efficient buildings pollute less, are sited to take advantage of the sun and daylighting, are designed for simpler operation and maintenance, and provide – by intention and forethought – a healthier learning environment.

Former NH State Official and Advocate for High Performance School Design

### Lessons Learned:

- Durable, long lasting buildings are a good investment
- The sun can provide high quality heat and light when building design is done to take advantage of it.

No. School Buildings	474
No. Students	207,417
No. Minority Students	11,938
No. Students in Special Education Program	29,390
No. Employees in School System	30,825
% Children with asthma (under 18)	7.9%
% Schools with at least one inadequate building feature	59%
% Schools with at least one unsatisfactory environmental factor	78%
No. Students At High Risk Daily*	142,080
State Education School Facilities Office	*Y
State OSHA Plan	Y
State Grants for Construction	*Y

\*Data contributed by: The Jordan Institute’s NH Partnership for High Performance Schools

# New Jersey



## Lessons learned

-Be aware of your child's health-it took us so long to make the correlation between her illness and the school.

-Parents must educate themselves-other kids were experiencing problems-headaches, nosebleeds-, though not as severe, they are cause for action

-Encourage children to speak out and take leadership roles-currently my daughter chairs the green cleaning committee at her school and advocates safe environmental conditions within and around schools.

# The voice

**“Finally, she was diagnosed with scalded skin syndrome.”**

When my daughter entered fifth grade, the nightmare began. Construction was taking place and she became very asthmatic, but over the summer, she was fine. As soon as school re-convened, she got extremely ill-headaches, body rashes and sores. No physician could diagnose it, no even her father who's an MD. She got worse; her skin began peeling, she was losing hair and developed dark spots all over. Finally, she was diagnosed with “scalded skin syndrome” and prescribed high-dose cortisone. After a while, she went back to school. Within two hours of entering, I was called to pick her up because she had completely relapsed!

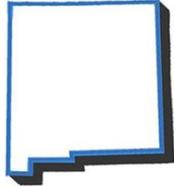
That's when it hit me; it had to be the school environment. I called the head of the school board and a swab test was conducted. I could not understand the results, so I personally hired an environmental expert, who told me that the tests conducted were insufficient.

My husband and I offered to pay to have a full inspection, but they refused, and agreed to pay for my daughter to be home-schooled: now I wonder why. We hired a law firm to force the school to get adequate testing, but it pulled out because of a conflict of interest since one of the lawyers' spouses worked for the district. We decided to place my daughter in another school nearby and she's not had a health problem since.

New Jersey Mother

No. School Buildings	2,467
No. Students	1,380,753
No. Minority Students	581,591
No. Students in Special Education Program	223,144
No. Employees in School System	185,837
%Children with asthma (under 18)	8.5%
% Schools with at least one inadequate building feature	53%
% Schools with at least one unsatisfactory environmental factor	69%
No. Students At High Risk Daily*	842,259
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# New Mexico



## An Example

LEED, or Leadership in Energy and Environmental Design, is a voluntary, national standard established by the U.S. Green Building Council. The USGBC certifies buildings in four categories, including Certified, Silver, Gold and Platinum, based on the number of LEED credits achieved through the project's design and construction. "The LEED market in New Mexico is growing exponentially at this time," says Stace McGee, principal of Environmental Dynamics Inc, an architecture and sustainability consulting firm. McGee also is a member and former president of the USGBC's local chapter....

The Baca Dlo'ay azhi Community School is currently the only LEED-certified building in the state. Within the past year, both Albuquerque Mayor Martin Chavez and Gov. Bill Richardson mandated that more city and state government buildings achieve at least LEED-Silver status.

.... Some of the Leadership in Energy and Environmental Design elements include a "night-flush" air cooling system, which essentially takes advantage of thermal properties in the building's materials by reducing extremely hot and cold temperatures. The library uses various recycled materials in its construction, and collects precipitation and recycles the landscaping runoff into a water reharvesting process that is expected to harvest about 93,000 gallons per year. The school also has been recycling about 75 percent of its construction waste.

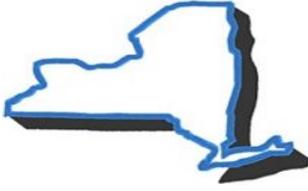
"Environmental sustainability is a very important and responsible choice," Leonard says, adding that the LEED certification really will exemplify the values his school advocates.

From: New Mexico Business Weekly, March 13, 2006

### Lessons Learned:

-One school can lead the way

No. School Buildings	824
No. Students	323,066
No. Minority Students	217,243
No. Students in Special Education Program	63,727
No. Employees in School System	40,479
%Children with asthma (under 18)	8.8%
% Schools with at least one inadequate building feature	69%
% Schools with at least one unsatisfactory environmental factor	75%
No. Students At High Risk Daily*	232,607
State Education School Facilities Office	N
State OSHA Plan	Y
State Grants for Construction	Y



## The voices

### Lessons Learned

- New York State needs new Public Health services for children
- New York State is setting guidelines for Healthy and High Performance School Design
- New York State is setting standards for green cleaning products to be used by all schools and state agencies
- New York City will require all public school construction to meet new green design standards
- A new facility data study shows that facility conditions affect test scores, attendance, and maybe suspension rates.

#### **“Green cleaning supplies in schools provide a safer and less toxic environment for our children”**

I was very concerned with certain environmental issues in NY schools, including; the health affects of mold in schools, chemical exposure to children, and cell tower construction at or near schools.

New York State recently created legislation insisting on the use of “green” cleaning supplies to be used in schools, which will provide a safer and less toxic environment for our children. As an environment and health advocate, I’ve become increasingly aware of scientific research, which demonstrates the relationship between children’s exposure to chemicals and development of disease later in life.

It is up to us to provide and insist on a healthy and safe environment for our children.

NY Environmental Advocate

#### **"My ‘suspension’ from school stripped me of my parental rights as well as my civil rights."**

I am a parent of three children attending a public school in Pendleton, NY. In fall 2003, I formed a parents’ group to address health and safety issues after my daughters' health was further compromised by unregulated school construction. I have spent 2<sup>1/2</sup> years doing research and investigation on health and safety issues at our school. In January 2006, the Superintendent of my children's school suspended me from the district for three months because I disobeyed his demand to cease investigating and questioning environmental and air quality issues affecting all students and staff at our school. The new school has been evacuated several times; last winter when children and adults smelled putrid fumes, more than thirty children, some unconscious, were taken to the local emergency room. The suspension stripped me of my parental rights as well as my civil rights..... I and other concerned parents have written to federal and state agencies, providing them with documentation to investigate health and safety concerns regarding our public school. The situation has been in the media often and is well known to the Education and Health Departments, yet the major problems are still not being addressed and public documents are often withheld. There are minimal laws that protect children at school and a real reluctance or lack of authority to enforce those laws.

One More Parent Fighting for Healthy & Safe Schools

# New York



## **“The results of my testing led to a \$300,000 PCB soil clean-up.”**

In the fall of 2004, I discovered PCB contamination at my son’s elementary school in Yorktown Heights, NY. Based on a recent Harvard study on PCBs in window caulking, I sent a piece of window caulking from the school’s grounds to a lab for analysis. The results yielded very high levels of PCBs.

When the Westchester County Health Department refused my request to do indoor and soil testing, I decided to test the soil. The sample yielded PCB levels that exceeded state and federal regulations. The results of my testing led to a \$300,000 PCB soil clean-up. This remediation was the first that NYS Health officials had seen due to PCB-laden caulking.

Further testing revealed high levels of PCB in several locations; on the window sills, windows and building masonry joints that prompted school officials to take action.

To educate the public and help change existing laws, I created a website called [www.pcbinschools.org](http://www.pcbinschools.org)

NY Parent

## **Lessons Learned:**

- PCB contamination can occur on the inside and outside of school buildings
- State and federal government officials did not mandate testing for PCBs in caulking materials
- Existing laws do not protect children from contamination
- This is not an isolated incident
- One person can make a difference

No. School Buildings	4,531
No. Students	2,864,775
No. Minority Students	1,321,845
No. Students in Special Education Program	409,816**
No. Employees in School System	360,358
% Children with asthma (under 18)	9.9%
% Schools with at least one inadequate building feature	67%
% Schools with at least one unsatisfactory environmental factor	76%
No. Students At High Risk Daily*	2,048,314
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

\*\*NCES data not available. Estimated at 409,816 by VESD Dec 2004 report. Found at [www.vesid.nysed.gov/sedcar/state.htm](http://www.vesid.nysed.gov/sedcar/state.htm)

# North Carolina



# The voice

## Lessons learned

-All children are required to go to school; therefore schools must provide a healthy, safe learning environment

-With serious health or learning impairments, schools must not only search out children who will be entering school, but also provide a facility that they can access and programs that are appropriate

**“I want him to be able to have social experiences and an education in public school.”**

I am a concerned parent with two extremely chemically sensitive children; my youngest is asthmatic as well. We converted our home 2 1/2 years ago to make it safer, environmentally friendly, and more cost effective. We changed the products- laundry cleaners, household cleaners, personal hygiene and dental care- that we use as well. We also took a closer look at our nutrition level- it wasn't bad, but it's now much better than others.

My daughter who is already in school often has stomachaches, and her hands are extremely dry, red and irritated from the soaps used in the school.

Next year my son will enter kindergarten and my husband and I are rightfully concerned. We have asked the Principal, accompanied with a letter from the allergist, to make sure that safer, healthier cleaning products that he can tolerate be used in his classroom. I want him to have a social education in public school, but some changes have to be made to ensure his health and education.

Alert North Carolina Parent

No. School Buildings	2,268
No. Students	1,360,209
No. Minority Students	567,168
No. Students in Special Education Program	193,418
No. Employees in School System	166,713
%Children with asthma (under 18)	9.0%
% Schools with at least one inadequate building feature	55%
% Schools with at least one unsatisfactory environmental condition	68%
No. Students At High Risk Daily*	863,528
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	N

# North Dakota



## Lessons learned

-Every state should ensure that its students are as safe-- or safer-- at school than they are at home.

# The Need

North Dakota has no School Health Promoting Policies for:

- Special Populations
- Vending Machines
- Recess
- Bullying
- Hazing
- Collaboration with Law Enforcement
- Air Quality
- Pesticide Use
- Playground/Facility Safety
- Individual Health Plans

From: [www.nasbe.org/healthyschools](http://www.nasbe.org/healthyschools)

No. School Buildings	556
No. Students	102,233
No. Minority Students	12,271
No. Students in Special Education Program	13,774
No. Employees in School System	15,065
%Children with asthma (under 18)	6.6%
% Schools with at least one inadequate building feature	49%
% Schools with at least one unsatisfactory environmental factor	62%
No. Students At High Risk Daily*	56,739
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	N

Ohio



# The voice

## Lessons learned

-Renovations should be prohibited unless precautions are in place

-Superintendents need to be more aware of school environmental conditions and appreciate the effects on the health of the students and staff.

-School closings are a costly process, especially in areas that struggle economically

-Be persistent, and be honest in advocating change; don't ever give up

- Ohio officials now cite 'let's not create another problem like this one'

### “Why should we continue to teach in a building that’s making everyone ill? Teach out!”

Sept 2001- The district decided to erect a brand new school building. It went up fast, but we were all happy to relocate. After we adjusted to the change of setting, we thought we'd be fine. I began feeling ill and having problems with my eyes. Meeting with several teachers in the lounge revealed they were experiencing similar problems. We hadn't heard about any kids getting ill- yet. I informed administration about the teacher's complaints and suggested that it may have something to do with the new building. They brushed me off, insisting that the building was flawless. I took action; I began tracking the kids. They were ill; symptoms flared during the week and subsided over the weekend. Soon after, I broke out with a severe rash and a few other teachers were diagnosed with new occupational asthma. Before long parents were inquiring, “what’s going on at the school? My child is ill.”

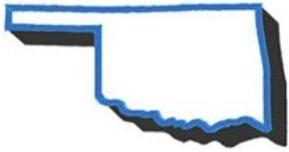
Nov 2001- Official school opening. By now it was no secret; the school was making us sick! As the Union Building Representative, I tried going through my local to effect change, but the President was close to the Superintendent, so the buck stopped. I didn't give up. I contacted every agency you can think of and eventually got media attention. The Superintendent said on camera, “It's only 1 or 2 teachers and 3 or 4 children.” The nerve! I immediately went to the TV station and showed them my data as well as my rashes.

April 2001- Teach out! We'd had it. We decided to take our classes outside; all but 90 students left the building. This is when things started to change: the school was closed for 16 months and cleaned up. It was a long road to recovery, 25% of teachers retired, resigned or just left. Many children were sick and may still be, but justice finally prevailed.

Heroic Ohio Teacher

No. School Buildings	3,988
No. Students	1,845,428
No. Minority Students	372,406
No. Students in Special Education Program	257,078
No. Employees in School System	242,518
%Children with asthma (under 18)	10.0%
% Schools with at least one inadequate building feature	76%
% Schools with at least one unsatisfactory environmental factor	83%
No. Students At High Risk Daily*	1,467,115
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y

# Oklahoma



## Lessons learned

-Always ask school about scheduled renovations and construction; gas powered equipment should be banned in occupied buildings

-US EPA's *IAQ Tools for Schools* is proven effective, but must be utilized properly to produce desired results; it can help avoid these problems

-Be prepared: school might not tell you what you need to know to protect your child

## The voice

**“Not one person at school told me my child was suffering due to the school renovations”**

Thick particulates and fumes filled the halls for weeks outside classes for medically fragile special education students. Although my daughter's already precarious health was affected and she missed more school days, needed more doctors appointments, and took more medications, not one person at school told me about the renovations which were also known to be affecting the health of staff.

Not one: not the teacher, not the nurse, not the aide, and not the Principal. I learned the full extent of the school's dangerous contamination when a member of the support staff called me to pick up my daughter after a gasoline powered engine had been operating indoors.

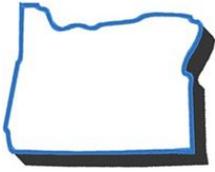
She was very ill, just days before the end of the school year. Now I wonder if my older child was also affected since she developed a chronic cough.

The school district was working with a designated US EPA *IAQ Tools for Schools* consultant at the time.

Oklahoma Special Education Parent

No. School Buildings	1,786
No. Students	626,160
No. Minority Students	241,311
No. Students in Special Education Program	93,047
No. Employees in School System	67,045
% Children with asthma (under 18)	9.2%
% Schools with at least one inadequate building feature	54%
% Schools with at least one unsatisfactory environmental factor	64%
No. Students At Risk Daily*	369,434
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	N

# Oregon



## Lessons learned

- Don't be afraid to speak out; it could save your child's life
- Never give up
- Unintended toxic exposures can have lifetime impacts
- Schools and districts with problems can turn into environmental leaders

## The voice

**"He was so ill he couldn't attend school for 5 years."**

A 9 year old boy became very ill after his school was carpeted and he was exposed to many chemicals. He was so ill he couldn't attend school for 5 years. It took a little less than a year to really begin to figure out what was wrong with him and, of course, many years were spent attempting to alter his compromised health. Three years of medical care and it still took some time after the treatments were stopped before the effects were seen. He was re-injured within a few months when he was inadvertently taken to a newly carpeted library. His entire education was impacted by these exposures.

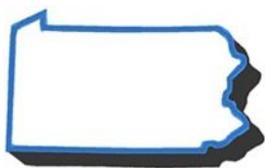
His parents became advocates on environmental issues in schools. The district is now a leader in school environmental quality in the state. One parent went on to help found the National Education Association "Healthy Schools Caucus" and continues to advocate for educators nationwide.

They knew they were right and that they had a voice that no one else had and somehow a responsibility to speak out. The doors keep opening and they keep walking through....

Oregon Parent and Educator

No. School Buildings	1,239
No. Students	551,273
No. Minority Students	126,668
No. Students in Special Education Program	70,548
No. Employees in School System	49,339
%Children with asthma (under 18)	6.5%
% Schools with at least one inadequate building feature	63%
% Schools with at least one unsatisfactory environmental factor	84%
No. Students At High Risk Daily*	405,186
State Education School Facilities Office	N
State OSHA Plan	Y
State Grants for Construction	Y

# Pennsylvania



## The voice

### Lessons learned

-Rally together to push for laws regulating school environmental conditions-schools must maintain a sanitary environment for our children.

-Parents need to keep children out of harm's way.

-Children are not trained workplace supervisors and have no OSHA protection.

**"I never thought sending my children off to school would turn out to be such a stressful experience"**

My 7 year old daughter and 5 year old twins immediately began to suffer from chest pains, shortness of breath, headaches, itchy eyes, itchy nose, and irritated throat. Alexis came home every day with dark black circles under her eyes. Their activity level was very low. One was later diagnosed with environmental asthma and mold allergies.

The twins were diagnosed with allergic conjunctivitis and severe nasal congestion. Symptoms worsened during the school week and improved over the weekends. A letter sent to parents before the start of this school year indicated that mold had been detected in several classrooms throughout the school. Insufficient mold remediation took place; the district cleaned the school themselves. But the crew that cleaned the school was "supervised" high school children hired by the district!

Public schools are "off limits" for governmental inspections unless they are invited.

My child was the first to be transferred to a new school within the same district. Within one week she was off all her asthma medication and has not suffered from any asthma attacks! The twins were also approved for transfer (eventually). We met many obstacles along the way.

Pennsylvania Parent

No. School Buildings	3,267
No. Students	1,821,146
No. Minority Students	431,511
No. Students in Special Education Program	253,129
No. Employees in School System	216,711
% Children with asthma (under 18)	8.4%
% Schools with at least one inadequate building feature	42%
% Schools with at least one unsatisfactory environmental factor	57%
No. Students At High Risk Daily*	901,467
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y

# Rhode Island



## Lessons learned

- Extermination is not permanent. It results in a short-term 'kill', then continued chemical treatments.

- Steps to dry out buildings and to block or screen out insects and other pests must be a requirement in all school districts

# The voice

## “Spring brings an annual insect disaster”

“Today they just came out of the woodwork. They came our like an army”, said the 15 year old veteran teacher. “It’s disgusting.”

Like a snippet form Alfred Hitchcock’s film “The Birds”, the termites, which have turned wood moldings into flimsy, deteriorating tunnel chambers over the years, came without warning as the morning turned warm yesterday.

“How am I supposed to do my job when I have to battle with these things every spring? Every year the exterminator comes to spray the school. When temperatures drop after exterminations and the heat is needed, you can’t tell me this spray isn’t coming up through the vents. I feel like I’m breathing in a toxic waste dump”- teacher.

“This is gross. This is not just a few things in the air; this is thousands of those things. We’ve had parents tell us they didn’t let their kids in the house with their school bags. I think it’s a wakeup call to the community that this facility is not what it was years ago. The parents and teachers have a right to be upset; we’re doing the best we can with the resources we have.”- School Committee Chair Person

March 2006, [www.woonsocketcall.com](http://www.woonsocketcall.com)

No. School Buildings	341
No. Students	159,375
No. Minority Students	45,475
No. Students in Special Education Program	33,443
No. Employees in School System	Not available
%Children with asthma (under 18)	10.1%
% Schools with at least one inadequate building feature	61%
% Schools with at least one unsatisfactory environmental factor	75%
No. Students At High Risk Daily*	108,375
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y

# South Carolina



# The voice

## Lessons learned

-It's recommended that the administration be involved every step of the way.

-There are no established levels of "safe" mold exposures.

-Groups that conduct testing do not always have good or established procedures for administering accurate tests. An individual came to our school to take air samples and did it right by a window that had been opened all morning. If comparing that air to the outside air, no wonder the levels matched and were found 'safe'.

### "The Fungus Among Us"

I was teaching an environmental science class and we were covering current environmental stories in the newspaper. Buena Vista, a local elementary school where my children attended, was in the news for having a potential toxic mold. The class voted to research that article together and verify the facts. The further we investigated the more concerned I became for the health of me and my children.

I noticed that there was mold all over our school in the ceiling tiles and later found out it had been there for many years. When I brought the attention of the dangers of the mold to those in authority, I was informed that the "powers that be" did not want to know. Hoping this was merely a lack of education, the class decided to "present their facts" to the school administration in a business-type setting; we collected a lot of data and put it into graphs. The *LAQ Tools for Schools* kit was acquired from the Healthy Schools Network, which also advised us.

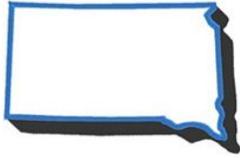
We were surprised to find that we had *Stachybotrys chartarum*.... The results were given to the Principal and only released to the students with approval. A local representative helped get the school a new roof. Currently, most of Greenville County schools are being renovated. Our children can breathe better now and our community is much more aware of the dangers of mold.

*USA Weekend* published a cover story about the work the students had done; their results were supported by experts all over the country. Suddenly, these kids had the lesson of a lifetime. They made a difference. Not only in their school, but the entire nation was educated about the dangers of indoor molds with their help.

South Carolina Advocate and Teacher

No. School Buildings	1,162
No. Students	669,198
No. Minority Students	318,812
No. Students in Special Education Program	109,561
No. Employees in School System	56,241
%Children with asthma (under 18)	9.2%
% Schools with at least one inadequate building feature	52%
% Schools with at least one unsatisfactory environmental factor	66%
No. Students At High Risk Daily*	394,827
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# South Dakota



# The Events

## Lessons learned

-The New London, TX school explosion in 1937 killed more than 300 people.

-Every school needs to be inspected by outside independent agencies.

-There are no human health standards set for molds, and mold testing is expensive.

-The best website for mold remediation is [www.epa.gov/molds](http://www.epa.gov/molds).

### Blast Guts School, Two Dead

A gas explosion tore apart a school and ignited a fire, killing two men and injuring a third. One of the men dies after being trapped for hours under debris. The fire marshall said the explosion was caused by a propane gas leak that was somehow ignited. The blast fire gutted the original brick school building and heavily damaged a new addition. School officials had smelled the gas about 5:30 pm Friday and evacuated wrestlers from the gym. The explosion happened 2 hours later when there were only three men present. The school housed grades kindergarten through twelve. Schools in other towns have offered to take the students and donate books and other supplies.

From: Nation and World, November 19, 2000

### Schools to Test for Molds

Small patches of peeling paint and discoloration in a few spots at a local elementary school and a high school have prompted administrators to bring in a specialist to test for mold. "We're going to be very proactive". We don't think it is mold, and we just want to be sure. If it is mold, we're going to deal with it immediately."

From: Press and Dakota, February 16, 2002

No. School Buildings	741
No. Students	125,537
No. Minority Students	18,899
No. Students in Special Education Program	17,130
No. Employees in School System	18,026
%Children with asthma (under 18)	5.7%
% Schools with at least one inadequate building feature	45%
% Schools with at least one unsatisfactory environmental factor	50%
No. Students At High Risk Daily*	59,630
State Education School Facilities Office	N
State OSHA Plan	N/A
State Grants for Construction	N

# Tennessee



## The voice

### Lessons learned

-Parents, teachers, board members, or anyone suffering from indoor air pollutants should not be afraid to speak out-- small incremental changes can make a huge impact.

**“No one at the school would admit that the school had mold issues”**

My 9 year old son started experiencing breathing problems as soon as he started kindergarten four years ago; he was diagnosed with asthma. He had never had any previous problems so this was news to us. His asthma was under control through kindergarten, but upon entering first grade he became really sick. We took him to an allergist and he immediately started four medications plus weekly allergy shots. Besides a PE teacher refusing to let him use his inhaler when he needed it, his first grade year was OK and the summer was great.

When he returned to school in the fall, he became extremely sick again. I called the superintendent to inform him that there was something in the school making my child sick. I was told that the school was fine and there was nothing the school could (or would) do to help me, so I began the long journey of phone calls, from the EPA to local health departments-- anyone who might be able to help. In the spring of 2005, my son had to stay home from school for six weeks due to problems with molds.

No one at the school would admit the school had mold issues, but many of staff and students were ill. The school system has since replaced part of the roof and taken out moldy ceiling tiles. My son is now allowed to call home and inform me of any attacks that he has.

Tennessee Parent

No. School Buildings	1,677
No. Students	936,681
No. Minority Students	269,541
No. Students in Special Education Program	171,594
No. Employees in School System	115,115
%Children with asthma (under 18)	8.5%
% Schools with at least one inadequate building feature	56%
% Schools with at least one unsatisfactory environmental factor	64%
No. Students At High Risk Daily*	562,009
State Education School Facilities Office	N
State OSHA Plan	Y
State Grants for Construction	Y

Texas



## Lessons learned

-Did anyone diagnose school children with breathing problems?

-School district decisions may not be in the best interest of the occupants' health and safety

-Many school districts have sub-standard facilities with poor indoor air quality

# The voice

**“That night I was diagnosed with reactive airway disease”**

On December 6, 2001, I entered the underground “crawl space” situated on the other side of our basement-area classrooms to photographically document the conditions that the occupants were being subjected to. This immense dirt dungeon contained untold toxins including an area that looked hauntingly like a pit of raw sewage; there were also blankets of white powder.

That night an ER doctor diagnosed me with Reactive Airway Disease. The white powder turned out to be lime, which is used to treat raw sewage and decompose dead bodies. After pointing out the egregious conditions of the crawl space, a huge clean-up operation commenced and district personnel rerouted the ductwork located in the crawl space.

This dispersed the lime powder into our classrooms via the compromised ventilation system. Since that time, I have learned that the return air for the building was pulled through this horrific space.

I have also learned that I have two precursors to lymphoma and that the school district has civil immunity and is self-insured, which might insulate them from the voices of the students and teachers.

Texas Community Member

No. School Buildings	8,110
No. Students	4,331,751
No. Minority Students	2,653,701
No. Students in Special Education Program	511,016
No. Employees in School System	562,705
%Children with asthma (under 18)	9.9%
% Schools with at least one inadequate building feature	46%
% Schools with at least one unsatisfactory environmental factor	60%
No. Students At High Risk Daily*	2,295,828
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y

# Utah



# The Event

## Lessons learned

-Schools, their communities, and the agencies that should be overseeing children's health need to ensure that all students have adequate health protections in place in school.

-Parents, like Paul Tuck, are leading petition and lobbying drives to improve basic services for children who attend school.

.... There was no nurse at Michaela's school that day, no medical equipment to ease the frightened girl's ragged breathing and racing pulse. During the 15 minutes it took Paula Tuck to rush to the school, the 70-pound girl began twitching. Scared and alone, she had taken eight more puffs of medication, enough to trigger seizures. The attack ultimately landed Michaela in a hospital for three days.

It also spurred her mother to launch a campaign aimed at getting more full-time nurses for Utah schools. "I was lucky. My child didn't die," says Tuck, 35. "She's too young to baby-sit. She's too young to stay home by herself. She shouldn't have her life in her own hands at school." ....

... A 2004 survey by the National Association of School Nurses estimated there was one nurse for every 5,834 Utah students. That's the worst state ratio in the nation.....

"For a state like Utah that values families so highly, it's amazing to me that children stop to matter when they walk out the door to go to school," she (Tuck) said....

[www.usatoday.com](http://www.usatoday.com), Kevin McCoy, Dec 12, 2005

No. School Buildings	887
No. Students	485,981
No. Minority Students	81,922
No. Students in Special Education Program	57,745
No. Employees in School System	38,974
%Children with asthma (under 18)	6.2%
% Schools with at least one inadequate building feature	62%
% Schools with at least one unsatisfactory environmental factor	72%
No. Students At High Risk Daily*	325,607
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Vermont



## Lessons learned

- We need a federal policy that mandates every school meet High Performance School Standards and provides the funding to back it up
- Schools lack the resources or expertise to deal with IAQ issues. Many times the response is to ignore the problem hoping it will disappear
- I've heard from other parents of children whose health has been compromised by exposures they have received in their schools- we are not alone, so speak out

## The voice

**“The school is now proactive in addressing IAQ issues.”**

My son entered a brand new school on his first day of kindergarten. Unfortunately, the heating, ventilating, air conditioning (HVAC) system was linked to the light switches to save energy. This resulted in also “saving” all the toxic emissions from new carpet, particle board furniture, drapes, cleaning products etc. for the children to breathe when they entered their classroom the next morning. We realized what was making him sick when measurable levels of formaldehyde, a carcinogen, were found in his blood. We removed him from the school and asked the administration to improve the air quality for all the students, with little success.

With the help of a lawyer, we received accommodations for his education and the HVAC system was de-coupled from the light switches. Many thousands of dollars and incredible amounts of stress later my son is attending college on a scholarship, but he still suffers from health problems as well as learning disabilities. The school is now proactive in addressing IAQ issues.

Schools should be a safe place for our children and staff. We need to make Healthy Schools our number one priority; the improvement in test scores and attendance rates will follow.

Vermont Parent

No. School Buildings	393
No. Students	99,103
No. Minority Students	4,090
No. Students in Special Education Program	14,737
No. Employees in School System	16,940
%Children with asthma (under 18)	8.0%
% Schools with at least one inadequate building feature	53%
% Schools with at least one unsatisfactory environmental factor	58%
No. Students At High Risk Daily*	55,002
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Virginia



## The voices

**“The school was evacuated immediately for the remainder of the day.”**

There are so many things going wrong. At one local elementary school four teachers-all working in the same wing- developed cancer over a very short period of time. In one case the doctor determined it to be environmentally stimulated. At another local elementary school, a floor cleaning procedure took place. Shortly after school was in session (9am) masses of children were coughing and choking. The school was evacuated immediately for the remainder of the day.

I have joined the local PTA and have spoken with the school board about petrochemicals and their association with childhood illnesses. I recently found out that the school district does have some form of Integrated Pesticide Management, but they have not completely converted to safe products. Currently, I am writing letters to local newspapers, asking for support on these issues that are affecting the children.

Virginia Community Member

**“Survivor’s do not want to see cancer continue in their families. If we have an opportunity to intercede- from a preventive perspective- we should; especially in the case of children.”**

After I lost many friends and associates to cancer, my wife and I founded a free mammogram program. Recognizing the importance of early diagnoses to cancer cures, I also felt that early diagnosis was just not enough. I wanted to inform communities to reduce the unnecessary and preventable environmental exposures that have been linked to cancer, while emphasizing that only sound science must prevail in evaluating environmental harm to human health.

While embarking on the efforts to reduce environmental cancer links, I became aware of a new vineyard coming in next my children’s school. Virginia’s wine industry was quick to defend the practice of agricultural spraying adjacent to pre-existing schools, but I have continued to raise the issue through public speaking and writing articles in Virginia newspapers. My first step in battling these types of collective exposures to children in school was to introduce the idea of best practices to Governor Warner’s Administration. Best practices to reduce pesticide drift are now being advocated by the state and I was recently recognized by Virginia’s Secretary of Agriculture and Forestry. But they are still spraying.

Next Generation Choices Foundation

VA cont'd on next page

# Virginia



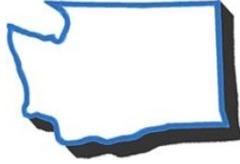
## Lessons learned

-There is no record keeping on school health risks and problems.

-We need accountability for children's health.

No. School Buildings	2,074
No. Students	1,192,092
No. Minority Students	453,961
No. Students in Special Education Program	172,480
No. Employees in School System	167,977
%Children with asthma (under 18)	8.3%
% Schools with at least one inadequate building feature	60%
% Schools with at least one unsatisfactory environmental factor	58%
No. Students At High Risk Daily*	703,334
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# Washington



## Lessons learned

- Fiberglass is a relatively new identified hazard that all school systems need to be aware of and to address to avoid long-term health effects. It is commonly found in ceiling tiles and ductwork insulation. Uncontrolled renovations will release fiberglass particles that will sparkle in the sun.
- Washington State has not revised their Washington State Administrative Codes since 1971.
- Schools are given citations by the Dept of Labor and Industries for serious violations, but fines are reduced if they say they have complied.
- \$61.00 per student is spent to make sure they pass the WASL's, yet there is no money for IAQ.
- The State Dept of Health must have a prompt response system for when IAQ or emergency situations occur

# The voices

**“We needed a population of 20% affected or “someone to die” in order for them to become involved.”**

I've been working on environmental problems as a parent since 1993 when our Elementary School had **asbestos tiles removed with a solvent**. I took my child (now a senior in High School) out of Kindergarten classes there because of them. His school had had a **history of failed water tests since 1974**. Despite these historical problems, I am always told by the state health department that “we needed a population of 20% affected or ‘someone to die’ in order for them to become involved.” Eighteen months passed before the school reacted to complaints and numerous lawsuits. This school is not unique in its problems.

Another school district had 9 years of IAQ problems. Students and teachers had symptoms of facial paralysis, chronic diarrhea, swollen lymph glands, scalp and body rashes, and ovarian cysts. The school district was slow to act....so parents stood up. They began collaborating and created a website to educate other parents on the state of the school and the health problems it was causing.

I have contacted over 150 agencies pleading for help. Parents are so frustrated that we are going to turn to our legislators to fund these problems. I have waited 13 years for the soup of agencies-- OSPI, DOH, SBOH -- to find the necessary funding and formulate an emergency response for IAQ problems.

Never-Stop Washington Parent

WA cont'd on next page

# Washington



## The voices

### FIBERGLASS and chemicals at school with life consequences: "at 22 he took his life".

I live in a dry climate. After several years of chronic illness and unexplained symptoms that improved during the summer, I started looking for answers in the air at my school.... We didn't have a moisture or a chemical problem, so what else was there? Through simple luck ... **we found we were breathing fiberglass**.... It took a year and a half in the building for my first symptoms to appear.... It took me over three years before I recognized a pattern of getting better in the summer and then worsening again by the end of the school year.... Other staffers have developed symptoms also, but it's dangerous to complain..... Though the district did some cleaning, they refused to replace the deteriorating ceiling tiles--the source of the problem.... Since there are no state standards to prevent this, children and adults in the school are still breathing fiberglass, a possible carcinogen and a definite allergy and asthma trigger. Today, I have a permanent disability caused by fiberglass that makes working and living a nightmare. If you suspect fiberglass, get out. Don't end up like me.

At a recent public hearing, I told my story. But nothing prepared me for the story told by a mother whose son was exposed to **chemicals used in asbestos tile abatement**.... She told of her child's excruciating pain and fatigue, of the district's assurance that all was safe and of the subsequent effects of the exposure. ...she told of his inability to tolerate vehicle exhaust or going to stores and his need to wear a mask, of the district's refusal to provide a healthier environment, and of a long legal battle.

I understood these things, because I've worn a mask to escape fiberglass and overpowering fragrances.... But I'm not a child. I'm not looking forward to an incredible number of years of horror. After a long battle, at 22, he took his life. As his mother finished her testimony, I was ashamed. I was ashamed that this is what we do to children. I was ashamed of school and government officials and parents of healthy children turning a blind eye.

Disabled Teacher and Health Advocate

No. School Buildings	2,251
No. Students	1,021,349
No. Minority Students	291,137
No. Students in Special Education Program	110,659
No. Employees in School System	104,332
%Children with asthma (under 18)	7.4%
% Schools with at least one inadequate building feature	60%
% Schools with at least one unsatisfactory environmental factor	74%
No. Students At High Risk Daily*	684,304
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

# West Virginia



## Lessons learned

-State education and environmental agencies need to prevent the siting of hazardous facilities near existing schools

-State health and environmental agencies should have a program to help parents and schools when children's health is at risk and/or already affected

# The voice

**“Coal dust is visible inside and outside the school.”**

Years after Marsh Fork Elementary in Sundial, WV was built, a coal mining operation moved in next door. Today this includes a huge mountaintop removal mine, a coal preparation plant, and a seeping 2.8 billion-gallon toxic coal waste dam directly above the school. A coal silo 200 feet behind the school loads as many as 250 coal cars a week, mostly during school hours. Coal dust is visible inside and outside the school.

Children complain of headaches, nausea, asthma, and noise.

The school board refuses to test for the obvious coal dust. These children need a new school in a safe area of their community.

No government agency has yet taken responsibility for the health and welfare of these children. Through apathy, fear of job loss, or a sense of hopelessness, most parents will not speak out. Who will intervene?

West Virginia Community Resident

No. School Buildings	799
No. Students	281,215
No. Minority Students	16,563
No. Students in Special Education Program	50,538
No. Employees in School System	34,634
%Children with asthma (under 18)	8.7%
% Schools with at least one inadequate building feature	67%
% Schools with at least one unsatisfactory environmental factor	82%
No. Students At High Risk Daily*	209,505
State Education School Facilities Office	Y
State OSHA Plan	N
State Grants for Construction	Y

# Wisconsin



## The voice

**“Don’t worry. There is just one parent and she is just a housewife with too much time on her hands.” School Administrator to School Board Member**

I have heard it all in our school system: “Don’t tell the parents. They don’t need to know any of this.” “Tools for Schools-- sure, we have those kits lying around somewhere. We don’t use them.” Comments like that propelled me into action. As did agency responses such as: “That’s the Health Department’s jurisdiction. No, that is Commerce’s jurisdiction.” Fundamentally, the agencies referred me back and forth, with neither agency really able to do anything.

In the end, Commerce did come in and issue citations, but they were for OSHA violations pertaining to the custodial staff for Right-to-Know and Personal Protective Equipment, because those were the only rules on the books that could be cited and enforced.

While that was somewhat helpful for workers, it had nothing to do with our ventilation and exhaust systems deficiencies that were old and improperly designed and installed; and nothing to do with pigeons and pigeon droppings in the air ducts; or molds; or lead in the drinking water; or pesticides applied without notifying parents and staff, and without regard to integrated pest management techniques.

OSHA rules don’t pertain to children. That is when I realized that children in K-12 schools in Wisconsin are basically unprotected, and I made a vow to work to change that. Work, I have done. We have legislation pending in the state: it is a start. I will continue to work to make sure that children’s health is placed at the forefront in Wisconsin schools – where it should be.

One Mom Pushing for Change

### Lessons Learned

-OSHA does not protect children

-No one does

No. School Buildings	2,250
No. Students	880,031
No. Minority Students	186,264
No. Students in Special Education Program	127,129
No. Employees in School System	106,225
%Children with asthma (under 18)	8.7%
% Schools with at least one inadequate building feature	49%
% Schools with at least one unsatisfactory environmental factor	60%
No. Students At High Risk Daily*	479,617
State Education School Facilities Office	N
State OSHA Plan	N
State Grants for Construction	Y

# Wyoming



## Lessons learned

- Education leaders, assisted by health and environment leaders, can adopt preventive policies to promote student health and safety.

# The Need

## Wyoming Policies Regarding Student Health

Wyoming has no health policies for:

- Violence Prevention Education regarding bullying or hazing
- Special Populations
- Food Vending Machines
- Tobacco Use
- Pesticide Use
- Playground/Facility Safety
- Recess
- Individual Health Plans
- Reporting Incidents of Violence
- Cooperating with Law Enforcement

Wyoming Rule 3991, Chapter 2, Section 6, requires the construction of a school bus to be "reasonably dust-proof"

[www.nasbe.org/healthyschools](http://www.nasbe.org/healthyschools)

No. School Buildings	380
No. Students	87,462
No. Minority Students	12,277
No. Students in Special Education Program	13,430
No. Employees in School System	14,037
%Children with asthma (under 18)	6.4%
% Schools with at least one inadequate building feature	49%
% Schools with at least one unsatisfactory environmental factor	68%
No. Students At High Risk Daily*	51,165
State Education School Facilities Office	Y
State OSHA Plan	Y
State Grants for Construction	Y

## Appendix

### Endnotes for Introduction

1. Enrollment and Employees: 53 million total public and private; public only enrollment projected at 48.2 million for 2004, 6m public school employees. National Center for Education Statistics, "State Nonfiscal survey of Public Elementary/Secondary Education: School Year 2001-05", 2003.
2. Walkable Communities: US EPA, Travel and Environmental Implications of School Sitting, EPA 231-R-03-004, 2003.
3. Contaminated sites: Agency for Toxic Substances and Disease Registry, with US EPA and Morehouse School of Medicine Regional Research Center for Minority Health, Oral Presentation at APHA, October 2001; also, Poisoned Schools: Invisible Threats, Visible Actions", Center for Health, Environment, and Justice, March 2001.
4. Asthma: US EPA, America's Children and the Environment, Second edition, 2003, p69, citing data from the Centers for Disease Control and Prevention, [www.cdc.gov/nchs/products/pubs/pubd/hestats/asthma/asthma.htm](http://www.cdc.gov/nchs/products/pubs/pubd/hestats/asthma/asthma.htm)
5. Schools and air quality: US EPA "IAQ Tools for Schools"; number of public schools, 94,112 in 2001-02, National Center for Education Statistics, "Overview of Public Elementary and Secondary Schools and Districts: School Year 2001-02", 2003.
6. Students in Special Education: 23<sup>rd</sup> and 24<sup>th</sup> US Department of Education/Office of Special Education Programs (OSEP) Annual Reports to Congress.
7. Gurney, JG. Fritz, MS et al. Analysis of prevalence trends of autism spectrum disorder in Minnesota. Arch Pediatr Adolesc Med. 2003. Jul; 157(7):619-21.
8. Provided by American Association on Mental Retardation, The Autism Autoimmunity Project, <http://www.taap.info/epidemic.asp>
9. Journal of School Health, Dec 2004, *Science-Based Recommendations to Prevent or Reduce Potential Exposure to Biological, Chemical, and Physical Agents in Schools*, Shendell, et al.
10. M Mendell et al. "A Summary of Scientific Findings on Adverse Effects of Indoor Environments on Students' Health, Academic Performance and Attendance", US Department of Education, PPSS #2004-06, completed pursuant to Section 5414 of No Child Left Behind.

### Footnotes to State Data Tables

11. See data table below for detail.  
[www.nces.ed.gov/programs/stateprofiles/](http://www.nces.ed.gov/programs/stateprofiles/)
12. American Lung Association. [www.lungusa.org](http://www.lungusa.org) >research>data and statistics> asthma
13. American Society of Civil Engineers Infrastructure Report Card.  
[www.asce.org/reportcard/2005](http://www.asce.org/reportcard/2005).
14. No. Students at risk daily calculation.  
Example: Alabama  
% Schools with at least one inadequate building feature = 59%

- % Schools with at least one unsatisfactory environmental factor = 63%  
 No. Students = 731,220  
 Calculation:  $59\% + 63\% = 122/2 = 61\%$   
 $61\% \times 731,220 = 446,044$  (Estimated Number of Students at High Risk Daily\*)
15. Council of Educational Facility Planners. [www.cefpi.org/pdf/state.doc](http://www.cefpi.org/pdf/state.doc)
  16. American Federation of State, County, and Municipal Employees. [www.afscme.org/health/safe14.htm](http://www.afscme.org/health/safe14.htm)
  17. Education Week and Teacher Magazine. January 5, 2006. p 95

See data table below for sources

No. School Buildings (2003-2004 survey)	FN. 11
No. Students	FN. 11
No. Minority Students	FN. 11
No. Students in Special Education Program	FN. 11
No. Employees in School System	FN. 11
%Children with asthma (under 18)	FN. 12
% Schools with at least one inadequate building feature	FN. 13
% Schools with at least one unsatisfactory environmental factor	FN. 13
No. Students At Risk Daily*	FN. 14
State Education School Facilities Office	FN. 15
State OSHA Plan	FN. 16
State Grants for Construction	FN. 17

### Additional Resources

**US EPA Healthy School Environments**, [www.epa.gov/schools](http://www.epa.gov/schools), especially Healthy SEAT (School Environmental Assessment Tool) to help policy makers and districts assess facility conditions and prioritize management actions and repairs.

US Department of Education-sponsored **National Clearinghouse on Educational Facilities**, [www.edfacilities.org](http://www.edfacilities.org)

**Pediatric Environmental Health Specialty Units** (PEHSU), co-located at medical centers with occupational health clinics, federally designated by US EPA and CDC to assist communities and providers with environmental health issues, [www.aoec.org](http://www.aoec.org)

**Environmental Law Institute**, online Bookstore, reports on school environments, including Indoor Air, High Performance Design, and School Liability for IAQ, [www.eli.org](http://www.eli.org)

**National Association of State Boards of Education**, for state education policies on children's health at school, [www.nasbe.org/healthyschools](http://www.nasbe.org/healthyschools)